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A Survey Assessing the Contributing Factors to Substance Abuse Treatment in
U.S. Corrections Settings

A Thesis Submitted to the
Yale University School of Medicine
in Partial Fulfillment of the Requirements for the
Degree of Doctor of Medicine

by

Michael Carlton Soule

2012

Abstract

Title: A Survey Assessing the Contributing Factors to Substance Abuse Treatment in U.S. Corrections Settings

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Abstract. In light of the dramatic rise in incarceration due to the “War on Drugs,” we explored the contributing factors to substance abuse treatment (SAT) programming – in particular, evidence-based treatments like medication assisted therapy (MAT) – implementation in United States correctional settings (including jails, prisons, and community corrections facilities). We hypothesized that current funding availability would be the primary factor preventing and contributing to program implementation, but further hypothesized that an array of secondary factors such as overcrowding, geographic location, facility type, and attitudes and knowledge about MAT would also play a role. We mailed a survey to an enriched sample of 225 correctional units’ administrators (57 jails, 129 prisons, and 40 community corrections units) across the country, selecting for units previously identified by a national survey as being located in areas particularly likely to be affected by high rates of drug-related crime. 54.9% responded. As was previously recognized, a majority (81.5%) of units reported some form of SAT programming, but low levels of MAT implementation were identified (16.1%, a majority of which was methadone). Funding cuts were identified as the most pressing barrier to future treatment implementation as well as the greatest

contributor to recent SAT program closure. However, Other factors, such as offender need and recidivism reduction were identified as factors contributing to program opening. Some geographic trends were noted, with respondents from the Southeastern US reporting less MAT availability as well as less willingness to implement it. Some differences were also noted across facility types, with jails much more likely than either prisons or community corrections to implement MAT. In a multivariate regression model, respondent score on a scale measuring attitudes towards methadone programming was the only factor significantly associated with current implementation of MAT. Both attitudes score and recent increases in SAT-specific budget were significantly associated with a willingness to consider implementing MAT in the future. We concluded that the bias towards counseling-based programming seen in our study was not unique and, taken along with the result that attitudes were more important than funding for current MAT implementation, this indicated that facility administrators' comfort with a program was the most important factor and that funding would be allocated accordingly. In the interest of expanding evidence-based SAT programming in this high-need population, we suggest that a targeted education campaign may be useful in improving attitudes, and that pilot programs to show proof of concept in regions that lack MAT (Southeast and Southwest) would likewise be beneficial.

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Introduction

Overview

This work sits at the intersection of public policy and addiction medicine, with implications for future programming and policy surrounding treatment of substance abuse disorders in the United States. Individuals with substance abuse disorders have been the subject of a large public debate over the last several decades and many agree that the ways in which we as a society are attempting to manage the problems that arise around substance abuse are not appropriate. In large part, the United States has been engaged in a “war on drugs,” both within and outside of our national borders, which encompasses military operations in foreign countries, international policy, and also the imprisonment of hundreds of thousands of American citizens. Nationwide, governments state and federal have chosen punitive over treatment measures as the intervention of choice to try to solve the problem of drug abuse and dependence in America.

This work seeks to illuminate the interaction between politics and drug abuse treatment and with an eye towards policy recommendation. Broadly speaking, the available evidence strongly indicates that treatment, not incarceration, is the optimal policy solution to the problem of American drug abuse and addiction. Key to this argument is regarding the incarceration of drug users for such crimes as possession of drugs or paraphernalia and the choice to punish and not treat as clear policy choices. We encourage the reader also to consider drug abuse treatment as a viable, evidence-supported alternative.

Experts in the field feel so strongly about this that they call “Punishment alone... a futile and ineffective response to drug abuse.”(1)

This paper seeks to provide two things: a dense, thorough introduction to this complex arena and the results of our study on the barriers to the implementation of this optimal solution. In the introductory section, terminology will be established, neurobiology briefly presented, and prevalence of substance abuse disorders presented. With that background, an overview of treatment methods will then be discussed. Then, the presence of the drug-involved offender in the correctional system will be explored, as will several of the most important factors associated with the incarceration of drug-abusing individuals. Then, several solutions to this complex issue (including public policy and academic pilot models) will be presented. This paper will then present the details of our study methods, results, and pertinent discussion.

Substance Abuse and Dependence

Until recent years, substance use was considered a social harm and associated with deficits in personality and individual fortitude. Over the past few decades, there has become increasing evidence for the complex interplay between biology, behavior, genetics and environment underlying substance dependence and abuse. This has led to the current understanding that substance use disorders are a chronic, relapsing - remitting disease with components of chemical dependence as well as habitual patterns and social structures surrounding obtaining money for drugs, obtaining drugs, and using drugs. There are now well-established diagnostic criteria defining substance

dependence and substance abuse as distinct, both of which are clinical diagnoses, met by assessing symptoms and signs over a 12-month period.

Substance dependence is a complex interplay between physiology and psychology. Physiologic dependence is a physical requirement for stimulation of an individual's receptors by drug molecules. When drug molecules are not available, a withdrawal state ensues. Part of the spectrum of substance dependence often includes substance use with the aim of abrogating withdrawal symptoms. Drugs that produce dependence often also produce tolerance which is defined as an individual increasing dose to maintain desired effect. Aspects of dependence are observable in drugs of abuse as well as in medications used for common medical conditions including hypertension.

The DSM-IV further defines substance dependence as including features of psychological dependence: compulsive, stereotyped behaviors of drug seeking, procurement, and use, often at the cost of other social, work, or self-care obligations. Some drugs of abuse are traditionally thought to be psychologically but not physiologically dependence-forming (e.g. marijuana, hallucinogens).(2)

Substance abuse is defined as the detrimental pursuit and use of drugs of abuse despite negative effects on the user's livelihood, health, personal relationships, and overall quality of life. Involvement with the legal system is common as is a chaotic and highly risky lifestyle. The detrimental effects of substance abuse on society include lost productivity, criminal involvement and

the associated law enforcement- and incarceration-related costs, property damage, and health care related costs.(3)

Recent data from the Substance Abuse and Mental Health Services Administration indicate that large portions of the population meet criteria for substance abuse and dependence and may suffer from the detrimental effects of substance abuse: 8.7% of the U.S. population over the age of 12 were classified with substance abuse or dependence by DSM-IV criteria with fully 21.5% reporting “last month drug use” in the age bracket 12-25 years old.(4) These statistics have been relatively stable over the last 3 years. The estimated cost of substance abuse on society in dollar estimates is huge: the National Institute on Drug Abuse (NIDA) projected \$181 billion in costs related to illicit substance abuse and \$235 billion in costs related to alcohol abuse.(5) Understanding how best to treat substance abuse and lower these social and individual costs is thus a clear priority.

Biology of Substance Abuse and its Treatments

To best understand substance abuse treatment, there are a few essential neurobiological points that should be considered. Understanding the ways in which drugs of abuse cause such deep-rooted shifts in individuals is of primary importance. Dopamine-driven reward pathways are known to be involved in the initiation and continuation of substance abuse and dependence. In brief, these are the pathways that normally orient us towards life-preserving behaviors (i.e. food, relationships).(1) These pathways are differentially over-stimulated with

drugs of abuse and the importance of the drug begins to exceed the importance of life-sustaining basics.(6) An essential part of substance abuse treatment is addressing the re-orientation of these neurobiochemical pathways towards non-drug rewards. This often takes time and repeated efforts, contributing to high “failure” rates when individual treatment episodes are considered in isolation.

One of the hallmarks of physiologic dependence is an alteration of receptor chemistry. As an addictive substance persists in the central nervous system of an individual, the receptors to which the substance binds tend to alter their density to accommodate the over-stimulated state that prolonged use incites and tolerance develops. Invariably, the receptors stimulated by drugs of abuse play roles in normal CNS functioning. This often means that to maintain a feeling of “normalcy,” a substance dependent individual must maintain a baseline level of substance intake. Without this maintenance of drug levels, an addicted individual goes through “withdrawal” – a syndrome of symptoms that varies between drugs of abuse resulting from a lack of receptor occupancy. These alterations contribute to the behavior of drug-seeking as well as the desperation that can accompany it.

Evidence supports treatment of substance use disorders that focuses on behavioral and habitual change (through counseling or various kinds of psychotherapy) as well as maintaining normal neurochemical levels (may include pharmacotherapy with receptor agonists, partial agonists, or antagonists). As with other mental illnesses, the evidence supports a combination of the medically- and cognitively-oriented therapies.(7) Pharmacological treatments of

substance abuse disorders are limited in scope, but several are highly effective. The most effective medical treatments are for opioid abuse of which methadone and buprenorphine have the most evidential support.(8) Alcohol abuse and dependence can be treated with a number of pharmacologic agents. Varenicline and nicotine replacement are evidence-based medication-assisted therapies for nicotine dependence. Unfortunately, at this time there are no evidence-based medication treatments available for other drugs of abuse, including cocaine, amphetamines and club drugs.(7)

Pharmacologic Treatment of Opioid Dependence

The most extensive body of evidence exists for opioid dependence treatment. The two main pharmacologic agents available both act as agonists on the same receptors that opioids of abuse act. Methadone has been available in the United States since 1947 and methadone maintenance (MMT) to treat opiate addiction has been in widespread use since the 1970s. In heroin or other opioid addiction (e.g., prescription opioids), the addicted individual's opiate receptors down-regulate and in order to maintain normal function, the presence of an opiate agonist is required. Methadone is a full mu opioid receptor agonist with greater affinity for the receptor than heroin. A maintenance dose ideally provides an individual with enough receptor occupancy to function normally without symptoms of opiate withdrawal (i.e. agitation, insomnia, nausea, diarrhea). Its oral dosing also prevents injection-related risk of disease transmission. Methadone can be injected, however, if taken outside of the clinic context.

There is a surfeit of evidence supporting the use of methadone in the treatment of opioid addiction, (9, 10) but notably, a 2000 JAMA study showed that MMT was significantly superior to detox and psychosocial support in terms of maintaining clients in treatment and in the longer term (6-12 months), resulted in fewer heroin use days.(11) Methadone itself is also relatively cheap. The drawbacks of methadone are numerous, however: because it is a partial agonist, there is both a danger of overdose and of diversion and abuse associated with it; these features require methadone to be distributed in highly regulated settings and with federal regulations on its use, both of which are costly measures.

Buprenorphine is a mu-opioid partial agonist. It lacks the danger of overdose associated with methadone and strong evidence supports its efficacy, (7, 12) although in a meta-analysis, methadone was found to have a marginal edge in retaining patients in treatment over buprenorphine.(8) Buprenorphine is often dispensed as a formulation with naloxone (a mu-opioid antagonist with very high receptor affinity, but not bio-available when taken via sublingual route), thus fully discouraging intravenous abuse and limiting diversion. Methadone has a stronger evidence base as a result of its longer history on the market, but many providers are now using buprenorphine as a first-line treatment option for opioid dependence.

Of note, clonidine, a drug which increases regulation of adrenergic tone, is used to mitigate opioid withdrawal symptoms. Clonidine is not considered a method of maintaining an individual and is only used during acute withdrawal. Evidence does not support the use of withdrawal as a method of treatment.(7)

Pharmacologic Treatment of Alcohol Dependence

There are three medications approved by the FDA for the the treatment of alcohol dependence: naltrexone,acamprosate, and disulfiram. Naltrexone is a mu opioid receptor antagonist and there is evidence to show that it is the most effective treatment modality for alcohol use disorders. It is also used in the treatment of opioid dependence, but the depot formulation was only approved in late 2010 in the United States. Acamprosate is used to treat alcohol abuse as a craving-reduction support, but studies suggest that it is only useful in the most motivated patients.(7) The exact mechanism of action of acamprosate is unclear, but is thought to relate to glutamine modulation. Disulfiram blocks an enzyme key to the metabolism of ethanol metabolites, resulting in severe symptoms if an individual taking the medication consumes ethanol. Disulfiram, again, has been found to be effective mostly for individuals who have high levels of motivation to quit drinking.

Non-pharmacologic Treatment of Substance and Alcohol Use Disorders

There are a number of non-pharmacologic means of treatment available for both substance and alcohol use disorders. Many of these are geared generally towards the goal of re-establishing rewards separate from drugs of abuse. Alcoholics Anonymous and Narcotics Anonymous are run on self-help and support-group models and are very common in the community and in correctional settings. The effectiveness of these modalities are difficult to

determine in a controlled way given the inability to control frequency of meeting participation due to the anonymous nature of the intervention as well as the difficulty in controlling the contents of the intervention. Understanding that, some counseling-based interventions have good evidential support. Individual counseling and case management services have proven to be effective as community-based interventions to reduce substance use and recidivism,(13) but a standardized, well-defined intervention has not been widely validated. Therapeutic communities (highly structured group housing and therapy) are the only intervention with solid evidence to support its effectiveness in the incarcerated population.(14) However, its effects are short-lived in those who only undergo treatment in the prison milieu and individuals clearly require further community-based treatment for prolonged treatment success to occur.(15)

Goals of Substance Abuse Treatment

The goals of substance abuse treatment are several-fold. The maintenance of sobriety is a main goal, with its hopefully accompanying return to more optimal living circumstances. The idea of reducing harm to users (be it sexual risk, injection-related risk, etc) and reducing criminal involvement are also important endpoints of treatment. Opioid agonist treatments have been proven to achieve these goals well for opioid abusing individuals. One important benefit of opioid agonist treatments is that they reduce injection and thus the health risks associated with it (HCV, HIV transmission, abscesses, etc).(7, 16) Outpatient treatment with opioid agonists reduces law infractions and incarcerations,

suggesting fewer substance-use-associated risks taken.(17) Also of note, studies have shown that the primary cause of death after release from prison is drug overdose(18, 19) – harm that is abrogated by bridging to appropriate, effective treatment.

Incarceration

The so-called “War on Drugs,” starting in the 1980s, was a nationwide attempt to curb substance abuse by increasing penalties on those who use illicit drugs. The ensuing implementation of numerous laws and judicial standards resulted in a precipitous growth of the criminal justice population. By 2005, 7.1 million people were under some form of correctional supervision(1), with 1/100 Americans behind bars in either prison or jail.(20) From 1980 to 1999, this reflects an increase of nearly 240%.(21) Sadly, but not surprisingly, the incarcerated population skews strongly towards young men, as does substance abuse and dependence (1 in every 30 men in the age bracket 20-34 years of age are incarcerated). Among those young men, Black men are disproportionately represented (1 in every 9 Black men aged 20-34 is in prison).(20)

It is generally accepted that an increase in drug arrests and tightening of minimum sentencing requirements nationwide has been the major driving force in the recent burgeoning of the correctional population in the United States.(22) Importantly, substance abuse rates in this period have been constant (per SAMHSA numbers) while substance abuse-related incarcerations have been on

the steep rise.(23) In 1986, only 9% of state prisoners were incarcerated for drug law violations.(24) Over the following years, these aggregated national numbers increased to nearly 25%.(25) This national growth was more pronounced in some states as some states ramped up the proportion of offenders incarcerated for drug-related charges tenfold over the period from 1980-1998.(26) The New York State Department of Criminal Justice reports the number of arrests for drug-related crimes (led by possession) sharply increasing after the year 1996.(27) Numbers from California reflect a similar timeline with an arrest and incarceration profile increasingly laden with drug offenders.(23, 28)

This increase in arrests has concentrated a large number of individuals with substance use disorders in our nation's correctional agencies. 2002 self-report statistics from the Bureau of Justice Statistics indicate that 53% of inmates were abusing or dependent on substances at the time of their arrest and 68% of inmates were abusing or dependent on either drugs or alcohol or both.(29) Urine drug test estimates from the same time period suggest that 67% of male and 68% of female arrestees tested positive for drugs (23% tested positive for more than one substance).(30) The correctional health care system was woefully unprepared for this influx, and rigorous, evidence-based treatment has not been the standard.(31)

Clearly then, the main method of dealing with the issue of substance abuse is simply to incarcerate those who use drugs. In a 2002 paper, Hammett, et al report data that indicates a rate of 0.38 arrests per year per drug user in a large, multi-city United States data set.(32) This high rate of incarceration is

reflected again in statistics on re-arrest: 70% of individuals in prison with substance abuse or dependence problems had a prior sentence and 47% of the same population had 3 or more prior imprisonments.(29) Many of these re-incarcerations occur for drug use-related violations of parole terms.(25)

This tendency towards re-incarceration is due to the fact that offenders with substance use disorders tend to have high rates of relapse to addiction, overdose after release, and high levels of HIV risk, and crime.(15) Many releasees return to social circumstances not unlike those they left before incarceration and face the same challenges and situations that contributed to their incarceration in the first place. (13, 33) There is strong neurobiological evidence indicating that many of these situations involve cues that are tightly knit in the brains of offenders with substance use disorders and all of the behaviors associated with it. (6, 34) Additionally, relapse is highly likely once the neurobiological shift to addiction has occurred. (35) In the absence of treatment, incarcerating individuals with substance use disorders is thus the equivalent of a revolving door - an expensive one.

Considering the current economic climate, cost to society is an important consideration in all public policy decisions and is an important piece of the argument for substance abuse treatment in corrections. In 2008, United States governments (local, state, and federal) spent roughly \$75 billion on corrections.(36) An example of this high cost of incarceration can be seen in the case of California: in 2004, each new incarceration cost the state an average of \$30,929.(28) Moreover, 73% of drug-related and 73% of property crime-related

offenders were found to be dependent on or abusing drugs at the time of their crime,(29) confirming the role of substance abuse in property crime, a significant social cost. Treatment that reduces the burden of substance abuse can thus result in lower criminality as well as lower rates of risky behavior, reducing the burden of crime on society as well as the burden of disease on individuals and society alike. Considering these costs as comparable social costs, various cost-benefit analyses show methadone(3, 37, 38) to be a cost-effective treatment measure. Several cost-effectiveness studies have also shown in-prison treatment that bridges to community-based treatment to be cost-effective, as well.(21, 39)

Substance Abuse Treatment in Corrections: Current State of the Evidence

Taken together, the above evidence points strongly to the need for treatment of substance and alcohol use disorders in correctional settings for, “prison may provide the only opportunity that a marginalized population has to engage with treatment services.”(40) At this nexus of social problem and public policy lies a burden of substance abuse on individuals suffering from such disorders, the burden of crime and lost productivity on society, and a burden on government finances wrought by high usage of incarceration alone as a policy for dealing with substance abuse. Evidence indicates that there is a clear role for including substance abuse treatment in corrections. This inclusion can be likened to “case finding” in infectious disease outbreaks and “targeted intervention” in many public health endeavors.

Prisons and jails have been a difficult place to encourage treatment of drug and alcohol use because of an emphasis on security and punishment over rehabilitation and support.(41) Historically, this has been the case for all of health care in prisons and jails. International agreements on prisoners' rights have attempted to counteract this by arguing that, from a human rights perspective, the punishment of confinement is punishment enough; restricting health care access and inflicting subhuman treatment on prisoners is a violation of their inherent rights.(42)

Substance abuse treatment in the correctional context has been studied and there is an increasingly strong body of evidence in the field. There are several secondary questions that arise around this topic: can someone be forced to change? Can prisoners be successfully transitioned from in-prison treatment to out-of-prison treatment? The issue of whether coerced or incentivized treatment works is a question that has been explored at length. While having treatment program clients who are ready and willing to change their substance habits appears to result in more optimal outcomes(43, 44), coercing engagement with treatment has been shown to be an effective means for reducing substance use behaviors.(45) This evidence contradicts the conventional wisdom commonly held by those in the substance abuse treatment field that individuals who are forced into treatment will resist it and thus render treatment worthless, or that they will disrupt the treatment milieu and destroy its effectiveness for other clients. This data provides a substantial foundation for the idea of placement of treatment into such a strongly coercive environment as a prison or jail.

Understanding that treatment in coercive environments can work and that the evidence in community-based treatment shows definitively that medication-assisted therapy (MAT) is the treatment of choice, several well-designed studies have shown the effectiveness of in-prison methadone maintenance therapy in reducing re-arrest, post-release mortality, increasing adherence to community-based treatment after release, and reduction in post-release drug use. Generally, studies support the use of opioid agonist therapy in correctional populations and find that, with a sufficiently high dose of medication, retention in treatment is quite good.(46)

A 1992 study performed at Riker's Island in New York, examined enrollment and retention in MMT after a jail term that included either induction into or continuation of MMT after booking. At 6-month follow-up, 27% of those who received MMT in jail were retained in community MMT treatment, while only 7% of jail-detoxed controls were retained. Significant positive effects on post-release criminality and substance use were associated with in-jail MMT.(47)

In 2005, Kinlock, et al published a study in a cohort of prisoners that replicated these results for a prison population. They showed clearly that pre-release maintenance therapy initiation was associated with entry into treatment in the community.(15) Kinlock's group then performed a prospective study of in-jail MMT in Baltimore, MD and subsequently performed 1-month and 1-year follow-ups with follow-up supporting a combination of counseling/case management and opioid replacement therapy. (48, 49)

Dolan, et al performed a more rigorous follow-up four years after their in-prison MMT trial. Most significantly, releasees who were retained in MMT treatment for longer than 8 months had a lower risk of re-incarceration by an adjusted hazard ratio of 0.3 (0.2 – 0.5, $p < 0.001$). They also found that individuals who stayed in treatment longer were less likely to drop out of treatment as time went on. This may indicate bias in the population retained in treatment, or this may indicate a cumulative effect of treatment. They found at follow-up that all deaths (17 deaths out of 382 total participants) occurred in the out-of-treatment part of the cohort, suggesting a protective effect of MMT.(50)

A very recent study examined the harm reduction effects of opioid substitution agonist therapy in prisons. This research suggests that OST in prisons reduces these risky behaviors while in prison, as it has been shown to outside of prison.(16)

With the effects of specific MAT interventions in mind, there's also evidence that just being observed by a program positively affects drug-related criminal outcomes. While under the supervision of a day reporting center, arrestees sentenced to complete a diversion program had fewer arrests for drugs while under supervision than those who were not assigned to complete the supervisory program. The effect was seen regardless of program content. (51)

Politics and Substance Abuse Treatment in the Correctional System

Despite the large amount of evidence to support initiation of rigorous, extensive substance abuse treatment programming in the correctional setting,

attempts by state and local governments to take a different tack on substance abuse have thus far been too small and too short-lived. Several notable policy interventions have been undertaken in states like Arizona (Proposition 200), New York (Riker's Island's KEEP program), and California (Proposition 36). In the interest of highlighting the central role of politics in the question of how to deal with substance abuse and dependence in the correctional system, a brief discussion of California's Proposition 36 will follow.

California's Proposition 36 (The Substance Abuse and Crime Prevention Act) was an alternative to incarceration for first- and second-time offenders that sent offenders to various community-based treatment programs and amended parole-violation laws to mandate community treatment, not in-prison, sentencing. Initially, the program was hobbled by California's budget crisis. Although the legislation included provisions that promised to prevent drawing funds away from other state-funded substance abuse treatment efforts, Governor Gray Davis did exactly that in the face of worsening budget crisis.⁽⁵²⁾ This shifting of programs was made especially visible in a 2007 study by Hser, et al noting clear displacement of previously "voluntary" clients out of the substance abuse care system by new clients mandated to treatment.⁽⁵³⁾ Of note, Governor Davis opposed the Proposition and it was widely speculated that this re-shuffling of the state substance abuse treatment budget was a thinly-veiled attack on the Proposition – without the other substance abuse treatment programming funded by the state, offenders sentenced under Proposition 36 faced limited numbers of program slots and prior offenders who were in treatment were bumped from

treatment. Adding to this fiscal opposition from the governor's office was political opposition from California's drug court judges, district judges correctional officers' unions, and District Attorneys.(54)

Thus, the program faced difficulty in enforcing engagement with treatment – a full 25% of those sentenced to mandatory treatment failed to enroll in treatment and not 50% of those who enrolled completed treatment.(55, 56) This failure to enroll in and complete treatment is likely a result of an attempt at increasing the number of individuals receiving treatment while simultaneously maintaining, or even decreasing, available treatment slots – the result of an unsympathetic governor and budget.

Even in the face of political interference, a significant economic impact was realized under Proposition 36: for every dollar spent, \$2.50 in value was returned to the taxpayers. This value increased to \$4 in value for every \$1 spent when cost-benefit analysis was limited to those who completed treatment.(56) Years after its implementation, the courts extended funding on an annual basis for several years due to the significant benefits that had been realized.

The example of California's Proposition 36 thus serves as an example of the influential role of government and politics on substance abuse treatment programming and its interface with the criminal justice system and the politically popular "War on Drugs." The role of an evaluation in this field thus must take into account the possibility that politics may be playing a role in treatment structures and must evaluate that role, if possible. Socially impactful programming should be large-scale and comprehensive and thus must rely on large budgets –

frequently state budgets. They must also be well integrated within a correctional system – a state agency. Thus, the political lessons learned from a case like CA Prop 36 are essential when working in or evaluating the field of substance abuse for offenders.

When the United States is considered alongside other developed nations, the dearth of evidence-based substance abuse treatment and harm reduction in our correctional system becomes comparatively more obvious. Internationally, MMT has been made available in many prison systems, but the United States continues to provide little to no access to this evidence-based therapy.(49) Canadian studies have shown efficacy of institutional MMT programming in reducing criminality and drug use.(57) After this study and a lawsuit by a prisoner, Canada expanded its in-prison methadone maintenance access in 2002.(58) Australia made MMT available to inmates in the 1990s and the positive effects of treatment implementation included a reduction in in-prison injection of drugs(59), and less drug use after release. Germany made clean syringes available to inmates in several prisons in 2000 and saw a reduction of in-prison needle sharing as a result, but the program was short-lived, caving under political pressure.(60)

All of this evidence and expert opinion should suggest that drug abuse treatment would be more widely implemented in criminal justice settings. However, evidence-based practice for substance abuse treatment is only partially implemented.(61) A recent survey of methadone and buprenorphine provision in U.S. prisons showed widespread reports that methadone was made available to

inmates in 55% of state prison agencies. More than half of these only provided methadone to pregnant women or as pain medication, however, and few offer MMT. Even fewer offer buprenorphine (14%) in any capacity. Only 45% of agencies confirmed referring any releasees to community-based MMT treatment.⁽⁶²⁾ There are obstacles to advancing MAT usage in the correctional setting, but were not defined by this study.

Statement of Purpose and Hypothesis

The purpose of this study is to explore the factors associated with the implementation of various kinds of substance abuse treatment, with a special focus on MAT, to fill an important gap in knowledge in an effort to direct efforts at implementing evidence-based practice in correctional substance abuse treatment.

We hypothesize that funding will be ranked by respondents as a major obstacle to substance abuse programming, past and future. We hypothesize that funding will also be the most important factor contributing to willingness to consider more robust substance abuse treatment programming. We further hypothesize that in a multivariate model, factors including geographic location, budget, knowledge and attitudes about MAT, facility size, overcrowding, and institutional pressures will be noted as significant covariates of MAT-based treatment implementation.

Methods

Population and Data Collection

The survey sample was drawn from a previously identified national sample of prisons, jails, and community corrections units identified through a randomization protocol designed during a prior large-scale national survey of correctional facilities (the National Criminal Justice Treatment Practices survey [NCJTP], a NIDA-funded project). The NCJTP survey effectively identified prisons that implement medication-assisted therapy (MAT) for substance abuse treatment (SAT) programming and others that do not.⁽²⁵⁾ The sample was taken from areas of the country with higher drug abuse rates and larger populations, both indicators of likely high rates of incarceration for drug abuse-related crimes. Their randomization procedure was undertaken with the aim of generating a similar broad, national sample, but one that was focused more on drug abuse issues than a purely random sample might be. Using a random number generator, each facility was assigned a 5- or 6-digit code, with a database of each facility's code kept on a secure encrypted server. For the purposes of follow-up, these codes were attached to facility names. Once data collection began, the responses were dissociated from their facility names.

Of note, a single case was discovered from the original randomization that constituted a duplication because the county jail and its associated sheriff's office were both included in the sample inadvertently. One of the cases was removed

and the response was only weighted once because only one correctional unit was represented.

Survey responses were collected from August 2011 until April 2012. The sampling strategy is diagrammed in Figures 1 and 2. We relied on each unit to direct the survey to the appropriate respondent within their organization, be they a health services administrator, a warden, or other administrator who directs substance abuse treatment programming for that unit. The survey packet was mailed to each unit in the random sample. Follow-up was conducted using telephone and e-mail contact along with redistribution of survey materials when required.

Instrument Design Procedure

The survey instrument is available in Appendix A. The mail-based survey instrument used in this study was designed in a multi-phase fashion.¹ First, an extensive search of the related literature was done to ascertain the existence of other surveys in the field that focus particularly on the opinions of administrators within the correctional system. Though the literature on substance abuse in correctional health care is relatively thin, several examples of previously executed surveys were found. (25, 63-65) To gain an understanding of the current standards of practice, published standards were studied.(66, 67) These were studied along with the defining texts on the subject(68-70) and a draft instrument was designed, drawing questions and frameworks from existing work.

¹ Note: The student author was lead instrument designer, was trained to lead and ran focus groups, managed contacts with collaborators, submitted protocols and forms to the Yale School of Medicine HIC, managed survey response and follow-up, and performed data entry and analysis.

The instrument was designed to focus on areas of organizational structure identified in previous work. (25, 61, 71) Particularly, funding, overcrowding, and attitudes scales regarding past, present, and future barriers were included. Other data on staffing change (as a measure of organizational instability) and methadone knowledge and attitudes (adapted from McMillan, et al(72)). Questions regarding particular numbers (i.e. populations, budgets) were standardized by requesting that facilities report their FY 2009-10 numbers for those categories.

In accordance with the recommendations of the survey design texts studied, the draft was presented to a focus group of administrators as well as treatment staff at the Connecticut Department of Correction. This group was made up of individuals who hold positions that mirror those of our target respondent population. The feedback from this session was integrated into the second draft of the instrument, which was subsequently distributed to a group of experts in the field for a second round of feedback. Again, comments and criticism were integrated into a third draft of the instrument, which was then presented to the Human Investigation Committee at the Yale School of Medicine where it was approved, along with accompanying documentation (anonymous-style informed consent form and cover letter).

While designing the instrument, we also considered work in the field of survey response rate and organizational characteristics that might affect it. Historically, surveys of organizations have poorer response rates than surveys of individuals (rates between 30 and 65% response have been reported for

organizations versus 70 to 75% in individual surveys) and this may be due to the hierarchical, bureaucratic nature of organizations and the ability of individuals within them to pass a task such as a survey off as “not my job.”(73) In order to combat this tendency and increase our study’s relevance to our target group of respondents, we explored allying ourselves with the American Correctional Association (the professional association for wardens and commissioners of jails and prisons). In the end, however, we were unable to facilitate this partnership and instead obtained a letter of endorsement from Dr. Faye Taxman, Principal Investigator of a number of large criminal justice surveys, with whom many of the recipients would be familiar.

Other barriers to response within organizations include survey length as well as restrictions on respondents’ time that make them unable to respond.(74) In order to combat the former, with each revision of our drafts, we shortened the instrument as much as possible. The latter barrier has been approached by ensuring that individuals have organizational support to complete the survey within normal business hours, with pay.(25) We were unable to provide this incentive, however. Without greater grant support, we were unable to ensure such financial or time support, however.

Data Reporting and Measures Employed

All information was collected by self-report by administrators designated by each facility. Data are reported by region and by facility type, but reporting

further detail on facility size and location of respondents by state was avoided to maintain sufficient anonymity of response.

For purposes of data analysis, average daily population was parsed into quartiles (0-414, 415-1260, 1261-1873, 1874 and above). A measure of overcrowding was created by calculating the difference between average daily census and stated maximum capacity. The reported budget for FY 2008-09 was parsed into quartiles, as well (0-3036500; 3036501-46200000; 46200000-447000000; 447000001-top). A measure of the comparative weight of substance abuse programming within the budget was calculated by taking the ratio of monies earmarked specifically for substance abuse treatment programming as a percent of the total organizational budget. The inter-quartile split was (0-0.0000; 0.0000-0.4314; 0.4315-1.7638; 1.7639-top)

When reporting current program implementation, respondents were asked whether programs or treatments were currently available and not whether individuals were actually receiving programming. It is assumed that some programs may be highly utilized and that some may be underutilized. Program flux was measured as any reported increase or decrease in slots or program opening or closure in the two years prior to survey completion. Factors contributing to increase or decrease were scored on a 0-2 scale in which 0=No contributor to change, 1=Minor contributor to change, and 2=Major contributor to change. Mean scores were assigned. Only those units indicating that changes in programming had occurred were asked to rank factors contributing to program change. Openness to future program implementation was asked in light of the

respondent imagining that all barriers to opening a kind of treatment programming were removed.

Knowledge and attitudes about methadone was measured using scales devised by McMillan and Lapham, 2004.(63). Knowledge scales about buprenorphine and naltrexone were not available in the literature and it was beyond the scope of this project to design and test new scales. The knowledge scale is a 14-point scale and the attitudes scale is a 13-point scale (available in Appendix A). For the purpose of logistic regression statistical analysis, cutoffs were established at the points of central tendency. Both scores were roughly normally distributed. Knowledge scores centered around a mean of 9.2 and a median of 9.0, so a score of 9 was used as a cutoff. Attitude scores were centered around a mean of 8.5 and a median of 8 and 8 was used as a cutoff score.

Regional breakdown of the original sample was done using a map generated for prior Department of Justice studies of the criminal justice system.

Data Analysis

All data was double-entered by hand by the author and double-checked by the author. Of note, some data were submitted by state-level agencies and not local units because of variations between states in the way that decision making regarding substance abuse treatment is made. In several states (CO, DE, FL, MI, MN, MO, OK, VA, WA), substance abuse treatment programming is administered solely at the state level and units were instructed that it would be inappropriate

for them to respond individually. In these cases, background data for several measures (inmate population, maximum capacity, funding) were given for the entire state agency. These numbers were roughly adjusted by dividing the indicator by the total number of units administered by the agency (whether or not they were included in our random sample; this data obtained through each official state DOC website) to obtain a mean indicator for that state. Each case for those states (total 41/124 responses) is thus represented by these adjusted means for the indicators mentioned above.

Several indicators measured attitudes or perceptions regarding contributors to recent program closure and expansion or perceptions regarding potential barriers to future treatment programming efforts. These indicators were measured by a Likert-scale response attributing the estimated magnitude of contribution of the given indicator to the given scenario (e.g. what was the possible contribution of new state funding on recently expanded programming). The Likert scale responses were assigned point values and a mean score was calculated for each. Chi-square analyses were also performed to determine whether the empiric differences in score found within contributors were measurably valid.

Primary outcomes of interest were the implementation of MAT (measured as facilities reporting implementation of any MAT - MTD, BPN, or NTX); whether a respondent indicated that they had a positive attitude towards implementing MAT (measured as a response of “Already Implemented,” “Would Implement,” or “Would Consider Implementing” when asked if what their attitude is towards MAT

for maintenance, alcohol abuse, or combined with counseling). These two outcomes were summed to a final binary outcome of “Would consider or already implements MAT.”

All statistical analyses were performed using SPSS v.19.0 (IBM, 2010). Chi-square and ANOVA were used to analyze differences between reported means. Univariate and multivariate logistic regression were used to determine the influence of various factors on the noted variables of interest.

Results

The final sample was ultimately representative of a national survey of criminal justice settings. Of the 226 sites sent the original survey, the overall response rate was 54.9%, with the final sample comprised of 124 diverse facilities. Though overall, each region was represented similarly ($p = 0.159$; see Table 1), there was a trend towards increased representation of facilities in the Midwest and Southeast. The response rate, however, was significantly lower in facilities in the Southwest and Northeast ($p < 0.001$; see Figure 1). Regarding facility type, the final sample was similarly distributed with 63% of jails, 53% of prisons, and 50.0% of community correctional settings responded to the survey. As a portion of the total sample, prisons make up a significant majority ($p \leq 0.0010$; Table 1), but there was no difference in response rates between facility types ($p = 0.332$; see Figure 2).

Figure 1: Sampling Flow Diagram, by Region of U.S.

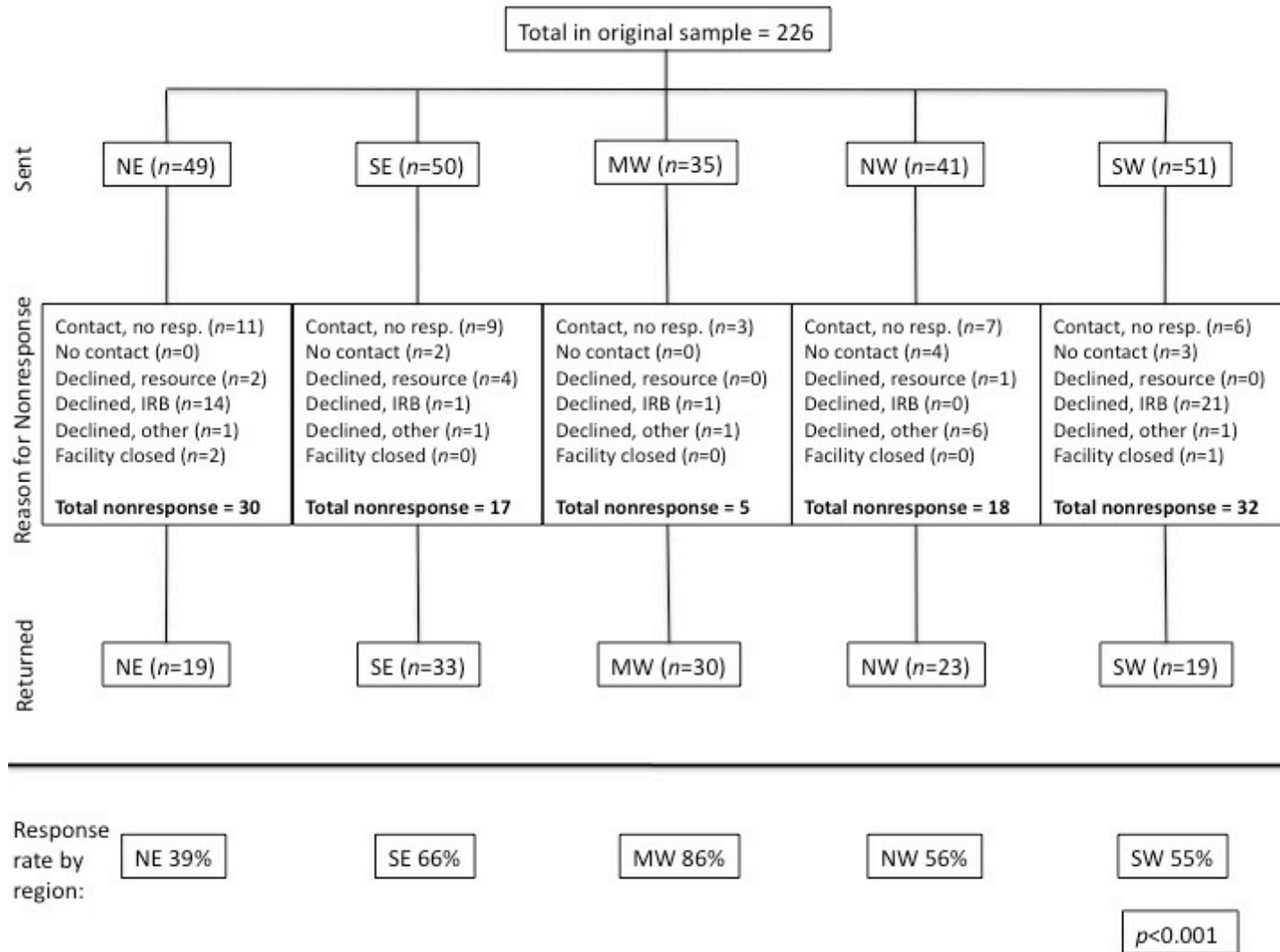


Figure 2: Sampling Flow Diagram, by Facility Type

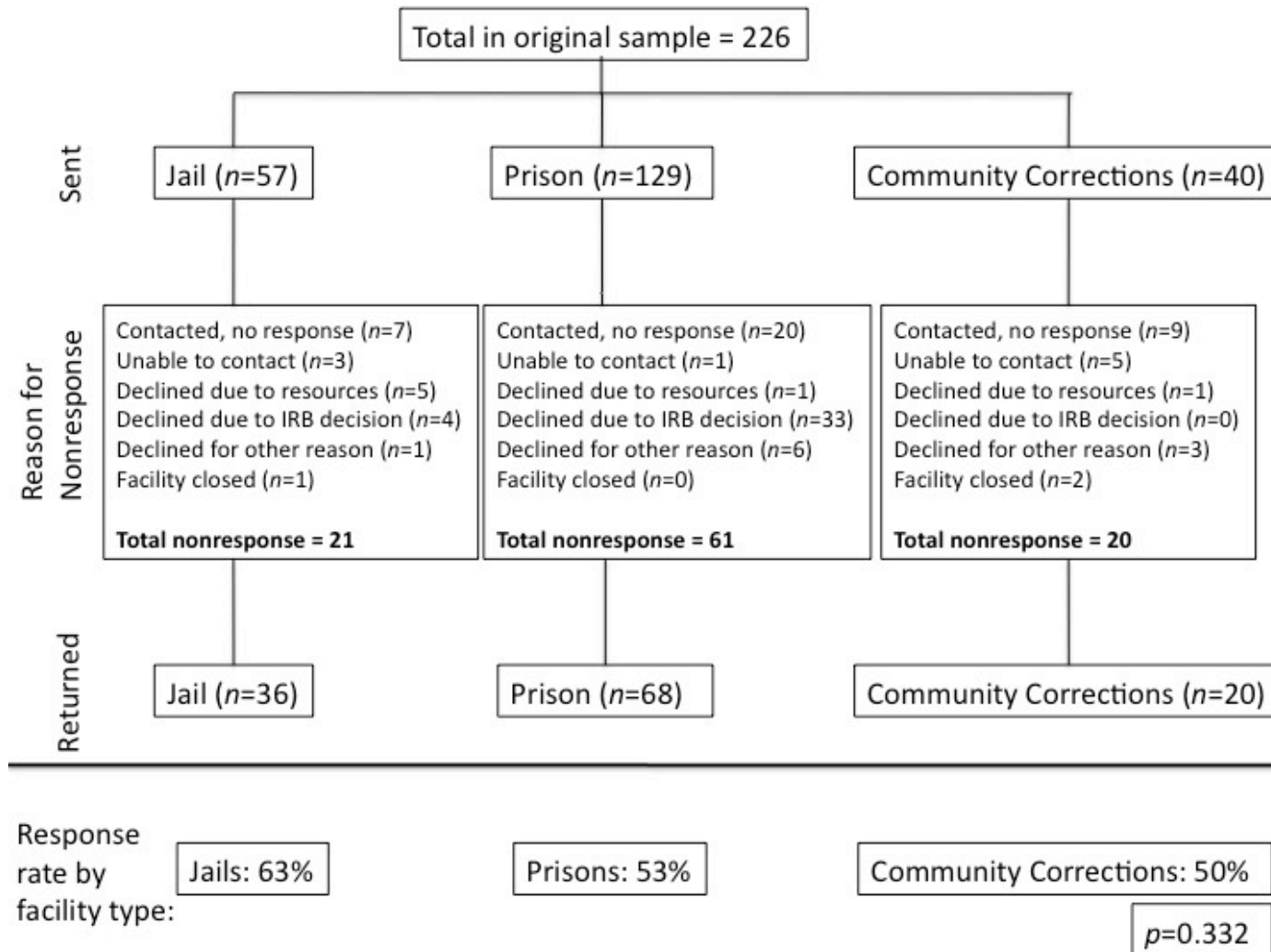


Table 1: Characteristics of Survey Respondents

	Total (n)	Chi-square (p)
Total response rate	54.9% (124)	
Sample Composition (n=124)		
Jails	29.0% (36)	<0.001
Prisons	54.8% (68)	
Community Corrections	16.1% (20)	
Northeast	15.4% (19)	0.156
Southeast	26.6% (33)	
Midwest	24.4% (30)	
Northwest	18.7% (23)	
Southwest	15.4% (19)	
Mean Daily Population (All sites)	1817 (SD=3207)	<0.05†
Jail (n=36)	1602 (SD=1957)	
Prison (n=68)	1660 (SD=1225)	
Community Corrections (n=20)	2592 (SD=7342)	
Percent of responding facilities operating over stated capacity (n=114)	19.8% (23)	
Median percent of 2009-10 budget designated for SAT (n=94)	0.41%	
Any recent increase in budget designated for SAT (n=107)	22.4% (24)	
Any recent decrease in budget designated for SAT (n=107)	33.6% (36)	
No change in budget designated for SAT (n=104)	43.3% (45)	
Currently SAT services (n=124)		
Offers any SAT	82.1% (101)	
Screening	79.8% (99)	
Referral	80.6% (100)	
MAT-Based Programming		
Methadone	15.3% (19)	
Buprenorphine	2.4% (3)	
Naltrexone	0.8% (1)	
Counseling-Based Programming		
12-step program (AA/NA)	87.9% (109)	
Individual counseling	69.3% (86)	
Group counseling	73.4% (91)	

Legend:

SAT: Substance Abuse Treatment

MAT: Medication-Assisted Therapy

AA: Alcoholics Anonymous

NA: Narcotics Anonymous

†=ANOVA used to detect difference between mean population sizes

The average daily population census reported by facility type varied widely (Table 1). Of the 36 jails responding, the mean reported daily population was 1,602 (range: 2 to 9,000; SD= 1,957). Variation in the prison population was similar with a mean of 1,660 (range: 30 to 5,500; SD=1,225). Community corrections units reported a mean population of 2,592 (range: 37 to 32,000; SD=7,342). Nearly 20% of facilities reported operating over their stated capacity.

Budgets ranged widely. The percent of the budget specifically earmarked for substance abuse treatment, however, was almost uniformly low, with a median of under 1% (0.41%) of the total operating budget set aside for this purpose. A majority described recent changes to their substance abuse treatment (SAT)-specific budget with 33.6% reporting a recent decrease and 22.4% reporting a recent increase.

Current Substance Abuse Treatment Practices

A majority (82.1%) of all facilities reported offering some kind of substance abuse treatment (SAT) programming for inmates. In accordance with the standards set forth by the National Commission on Correctional Health Care, baseline care for inmates who need substance abuse treatment, (66, 67) a majority of facilities have systems for screening for and referral to SAT (see Table 1).

More facilities offered counseling-based treatment than MAT. Nearly all offer 12-step programming, either Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) ($n=109$; 87.9%), group counseling ($n=91$; 73.4%), or individual

counseling ($n=86$; 69.3%) while a minority ($n=20$; 16.1%) of respondent facilities offers any MAT. Nineteen (15.3%) offer methadone (MTD), even fewer ($n=3$; 2.4%) offer buprenorphine (BPN), and 1 offers naltrexone (NTX). The number of individuals receiving MTD in those facilities providing it varies widely (mean = 85, SD = 152). Of those who stated they do provide MTD, 82.4% are generally satisfied with it. Of note, only 8 of the respondents who indicated that they do not provide methadone in their unit noted that they do not have individuals who would benefit from MTD treatment; community corrections units were more likely to indicate this ($p<0.001$) but there was no statistical difference between regions ($p=0.183$).

There is a significant difference in which regions offer any substance abuse treatment services ($p = 0.065$; see Table 2), favoring the Northwest, Northeast, and Midwest. MAT, similarly, is disproportionately offered in these regions ($p < 0.05$; see Figure 3). There is a significant difference in which facilities offer any substance abuse treatment ($p < 0.01$; see Table 3), favoring prisons. Jails, however, disproportionately offer MAT ($p < 0.001$; see Figure 4).

Table 2: Availability of and Attitudes About MAT for Substance Abuse Treatment by Geographic Region

	All	Northeast (19)	Southeast (33)	Midwest (30)	Northwest (23)	Southwest (19)	Chi-Square
Any SA Treatment available (<i>n</i> =124)	81.5% (101)	94.4% (17)	90.9% (30)	76.7% (23)	82.6% (19)	63.2% (12)	0.065
Any MAT currently available (<i>n</i> =124)	16.1% (20)	26.3% (5)	3.0% (1)	13.3% (4)	34.8% (8)	10.5% (2)	<0.05*
MMT	15.7% (19)	27.8% (5)	3.0% (1)	13.3% (4)	34.8% (8)	5.3% (1)	<0.01†
BPN	2.3% (3)	0 (0)	0 (0)	3.3% (1)	4.5% (1)	5.3% (1)	0.678
NTX	0.8% (1)	0 (0)	0 (0)	3.3% (1)	0 (0)	0 (0)	0.559
Implements or would consider implementing MAT (<i>n</i> =115)	55.7% (64)	58.8% (10)	16.7% (5)	80.0% (24)	70.0% (14)	61.1% (11)	<0.001‡
If barriers were removed, would add new SA treatment programming (<i>n</i> =116)	93.1% (108)	88.9% (16)	100% (28)	89.7% (26)	95.7% (22)	88.9% (16)	0.428

*=Significant at $p < 0.05$

†=Significant at $p < 0.01$

‡=Significant at $p < 0.001$

Figure 3:

Availability of MAT (MMT, BPN, NTX) ($n=124$)

- - Northeast: 26.3% (5)
- - Southeast: 3.0% (1)
- - Midwest: 13.3% (4)
- - Northwest: 34.8% (8)
- - Southwest: 10.5% (2)

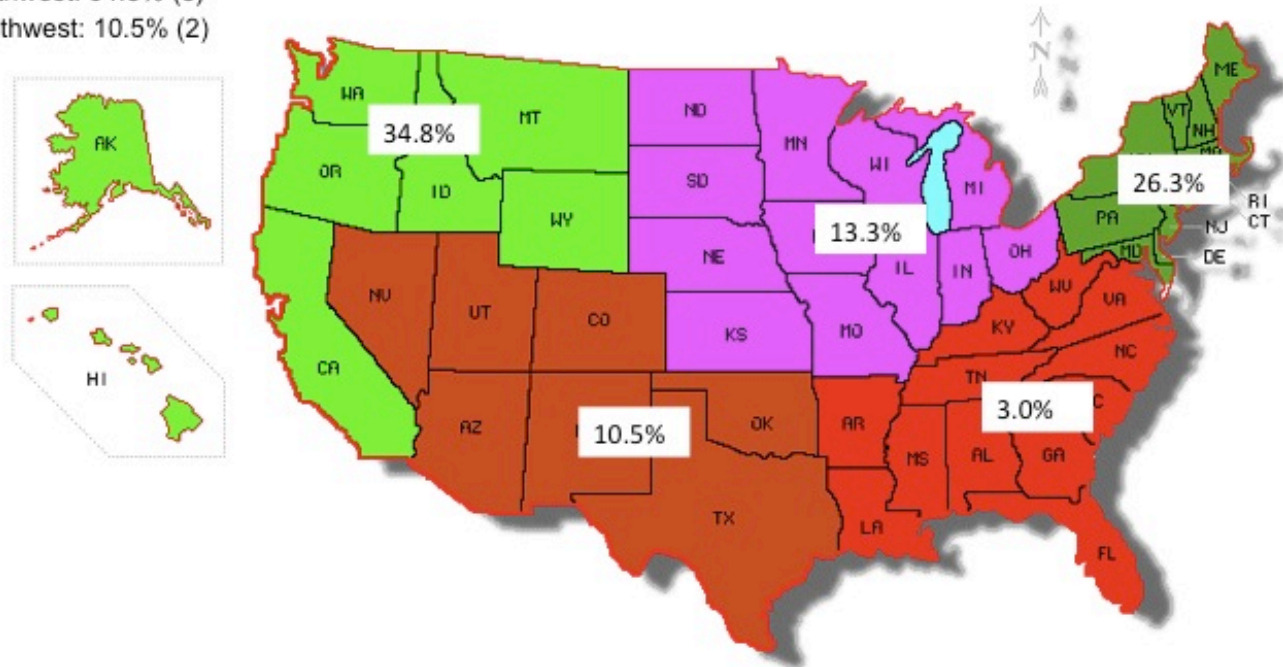
 $p < 0.05$ 

Table 3: Availability of and Attitudes About MAT for Substance Abuse Treatment by Facility Type

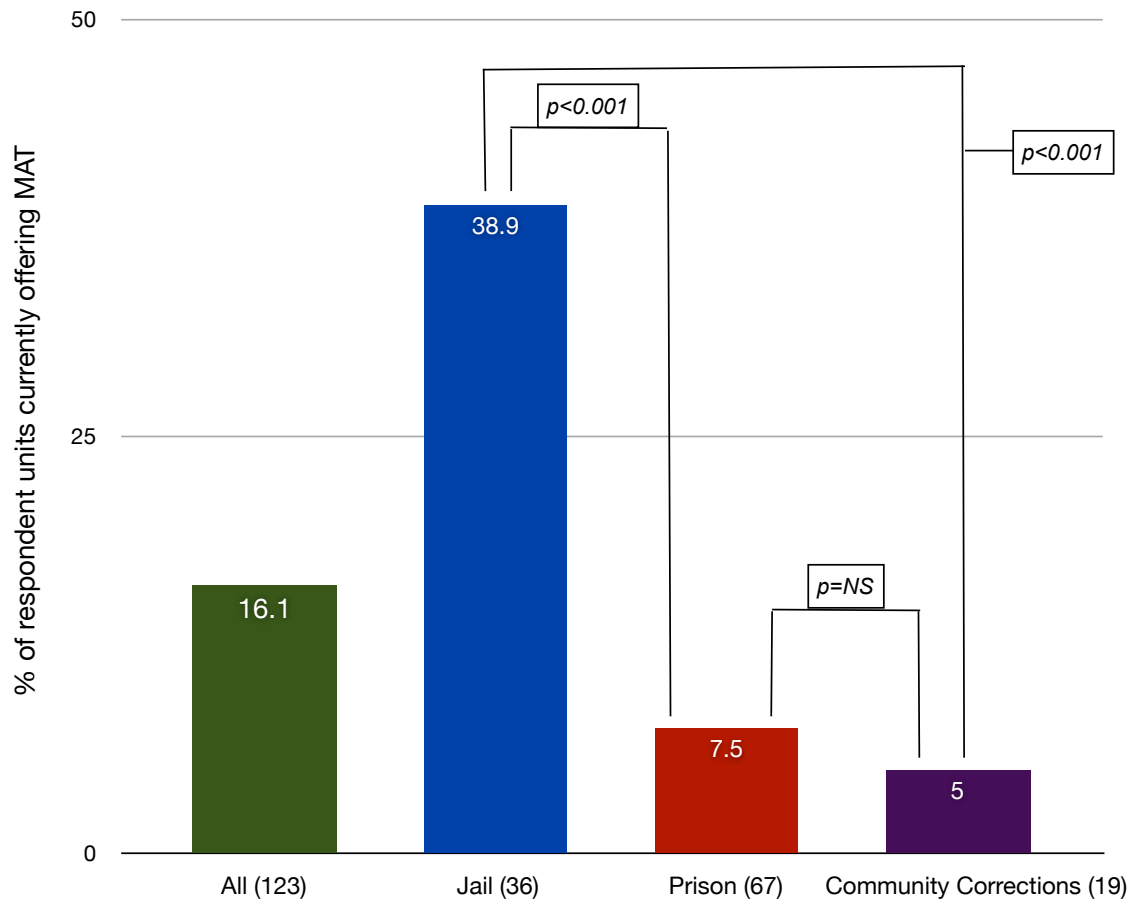
	All	Jail (36)	Prison (68)	Community Corrections (20)	Chi-square
Any SA treatment available ($n=124$)	81.5% (101)	66.7% (24)	92.5% (62)	75% (15)	<0.01†
Any MAT currently available ($n=124$)	16.1% (20)	38.9% (14)	7.5% (5)	5% (1)	<0.001‡
MMT	15.4% (19)	36.1% (13)	7.5% (5)	5.0% (1)	<0.001‡
BPN	2.3% (3)	5.6% (2)	1.6% (1)	0 (0)	0.346
NTX	0.8% (1)	0 (0)	1.5% (1)	0 (0)	0.658
Implements or would consider implementing MAT ($n=115$)	55.7% (64)	64.5% (20)	51.6% (33)	55.0% (11)	0.491
If barriers were removed, would add new SA treatment programming ($n=116$)	93.1% (108)	87.9% (29)	96.8% (61)	90.0% (18)	0.216

*=Significant at $p<0.05$

†=Significant at $p<0.01$

‡=Significant at $p<0.001$

Figure 4: Current Availability of Any MAT (methadone, buprenorphine, or naltrexone)



Recent Changes in Programming

About 70% of the sample indicated that some change in SA programming had occurred in the last 2 years with 53 respondents indicating some increase in programming and 35 indicating some decrease in SA programming. The great majority of respondents in the Northwest (77.3%) indicated recent program decreases (Figure 5) with almost 50% of respondents in the Southwest similarly reporting decreases, and a minority of respondents in the Midwest, Northeast, and Southeast reporting decreases in programming ($p < 0.001$). The majority of respondents in the Southeast (71.9%) and Midwest (55.5%) reported some recent increase in SA programming, with roughly a third of respondents from the Southwest and Northeast and a minority of respondents from the Northwest reporting recent increases ($p < 0.001$; see Figure 6).

Figure 5:

Recent Decreases in Any Substance Abuse Treatment Programming ($n=119$)

- - Northeast: 12.5% (2)
 - - Southeast: 9.4% (3)
 - - Midwest: 13.3% (4)
 - - Northwest: 77.3% (17)
 - - Southwest: 47.4% (9)
- $p < 0.001$

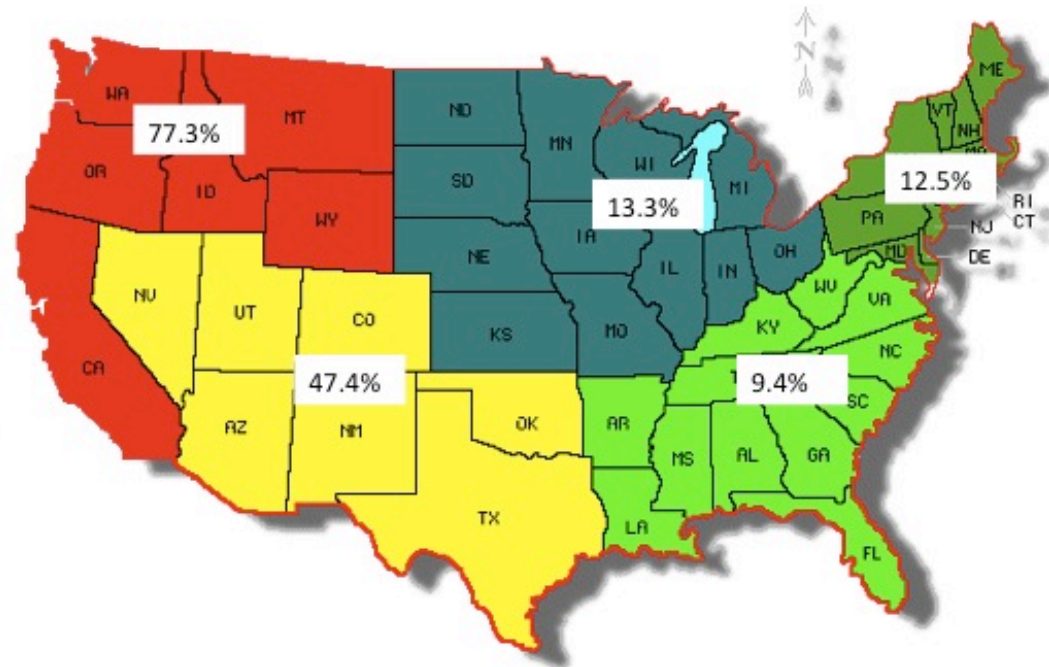
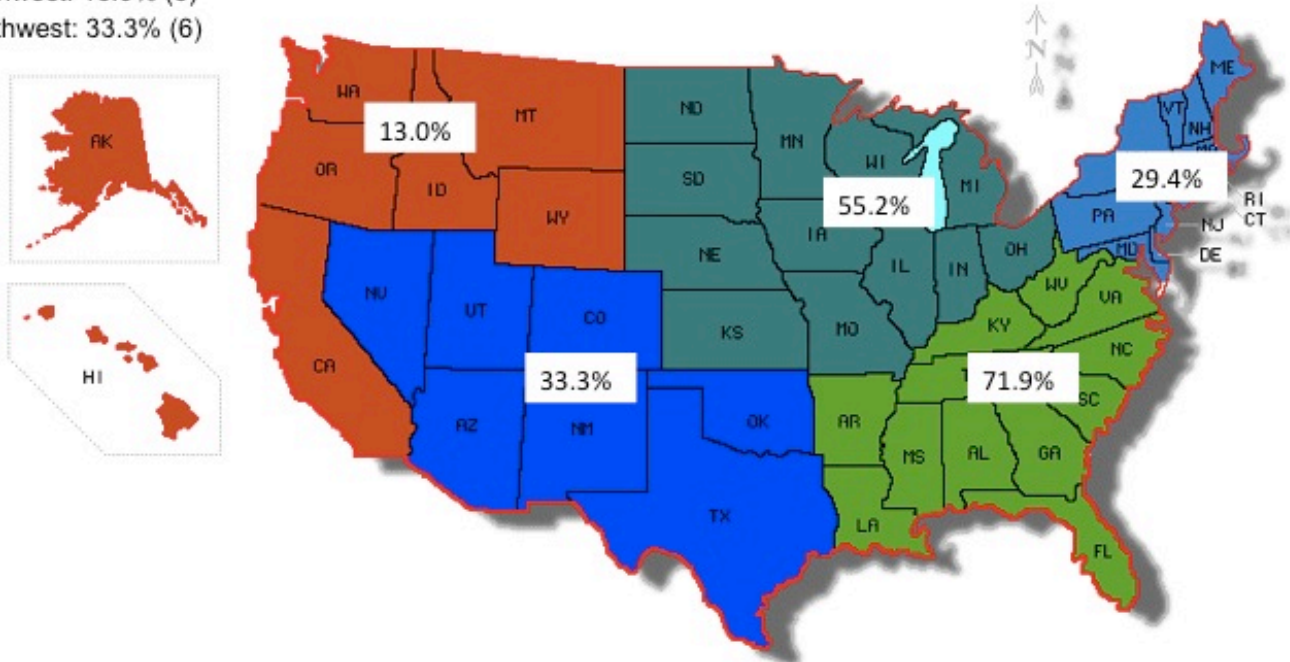


Figure 6:

Recent Increases in Any Substance Abuse Treatment Programming (n=119)

- - Northeast: 29.4% (5)
 - - Southeast: 71.9% (23)
 - - Midwest: 55.2% (16)
 - - Northwest: 13.0% (3)
 - - Southwest: 33.3% (6)
- p<0.001



When examined by facility type, there was no statistical difference across all three types ($p=0.305$), nor was there a significant difference between groups, among those reporting recent decreases in SA programming. An empirically greater proportion of community corrections units reported decreases than jails or prisons (Figure 7). Prisons were more likely than jails or community corrections units to report programming increases ($p<0.001$; see Figure 8).

Figure 7: Programs Reporting Recent Decrease in Programming, by Facility Type

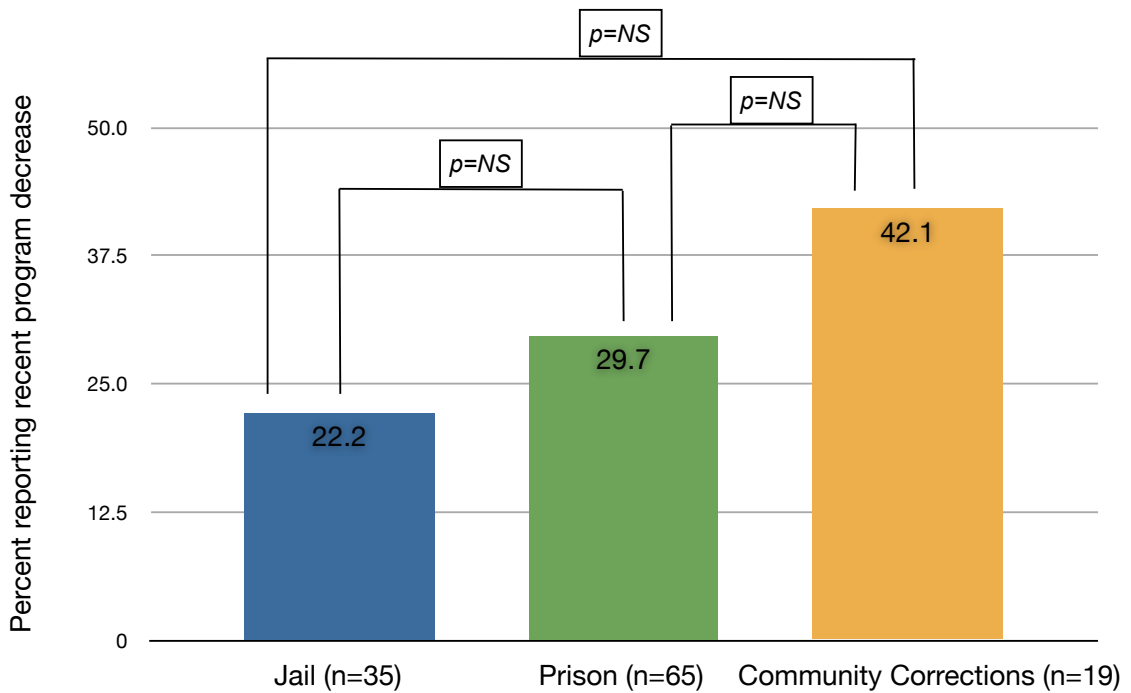
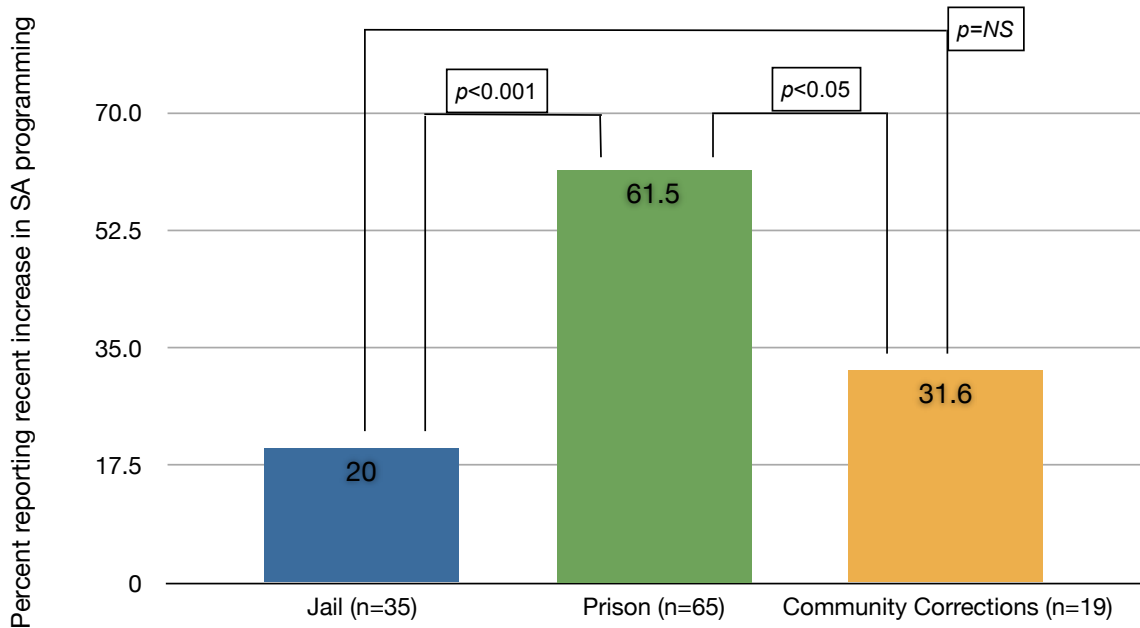
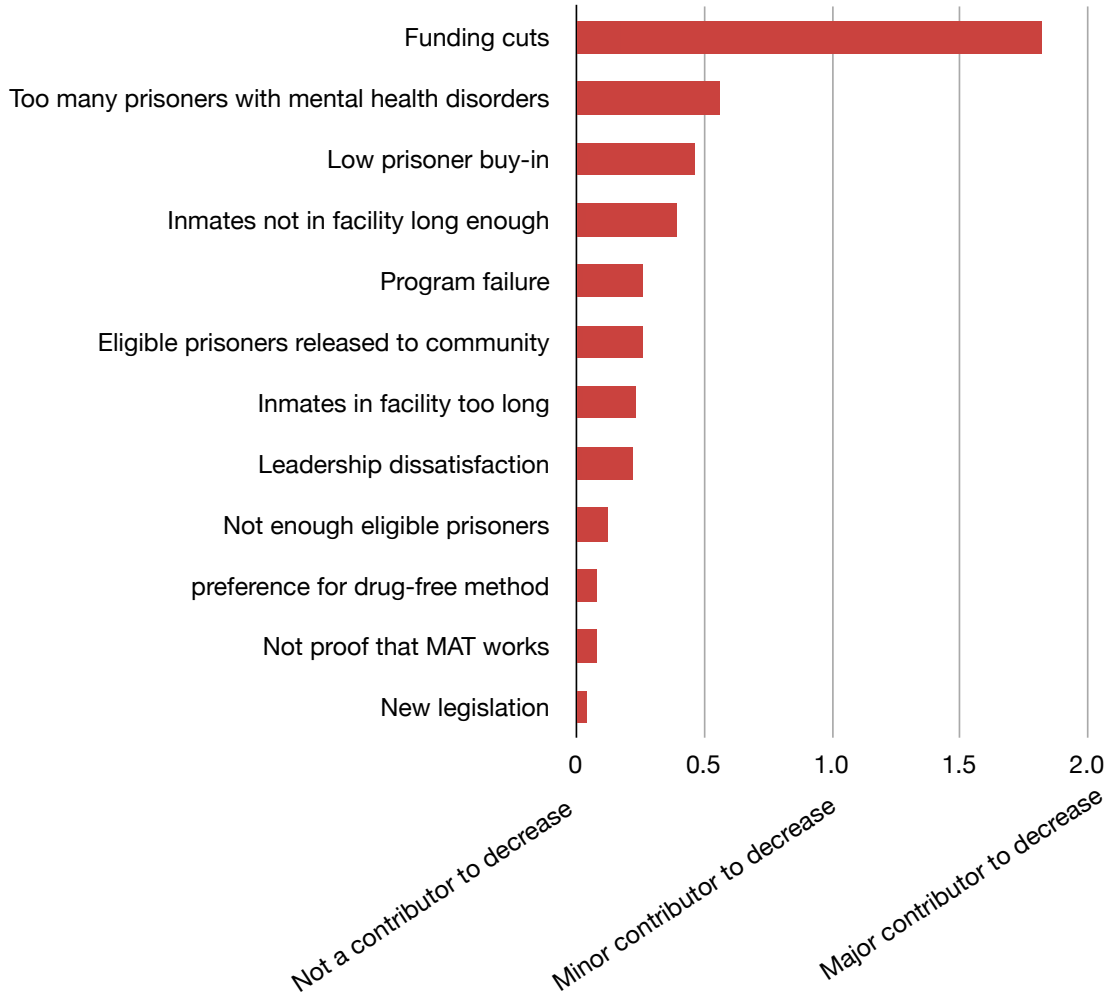


Figure 8: Programs Reporting Recent Increase in SA Programming, by Facility Type



Respondents who reported programming decreases were asked to rank possible contributing factors to program contraction (Figure 9) on a scale of no, minor, or major contributor to decrease. Funding cuts were the only factor with an aggregate score above 1 (where 1 = “minor contributor to decrease”). Other factors such as “leadership dissatisfaction with programming” and “no proof that MAT works” were not even considered to be minor contributors to decrease.

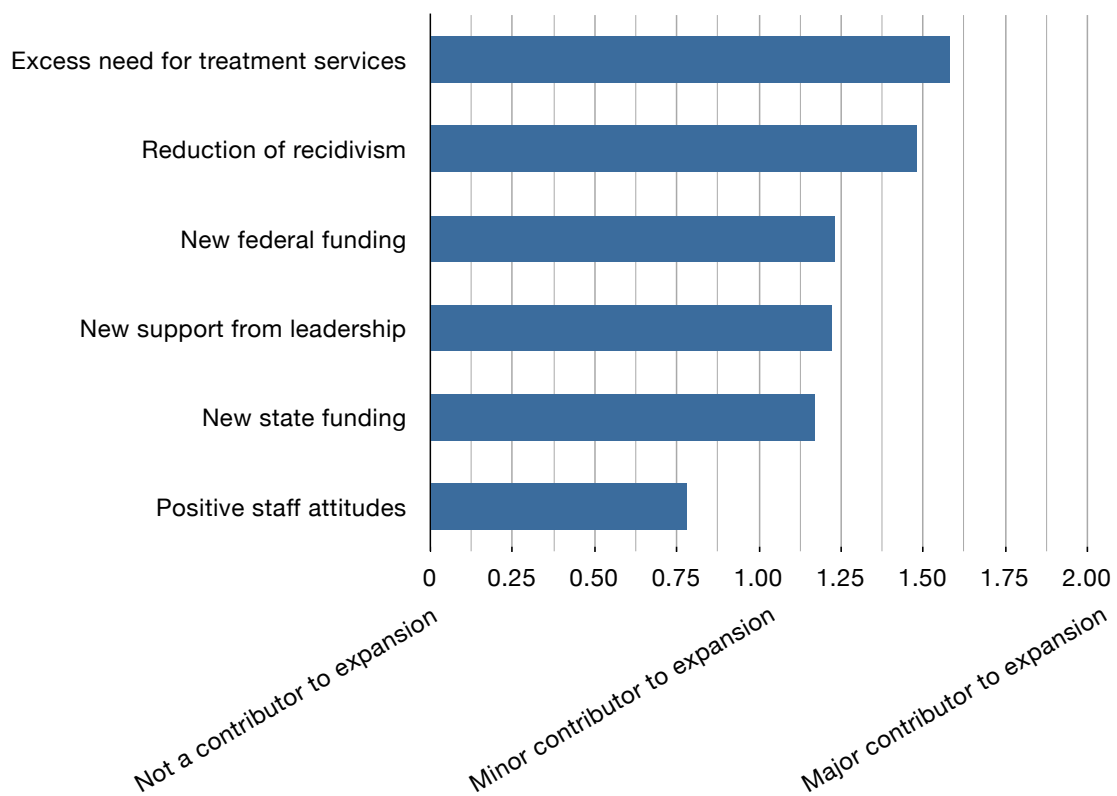
Figure 9: Factors Contributing to Recent SA Program Contraction (n=35)



* Mean scores

Respondents who reported program increases were similarly asked to rank possible contributors to increase (Figure 10) using a similar scale. “Excess need for treatment services” tallied the highest aggregate rank, but “reduction of recidivism,” “new support from leadership,” “new federal funding,” and “new state funding” were all ranked above a score of 1 (minor contributor to increase).

Figure 10: Factors Contributing to Recent SA Program Expansion (n=53)



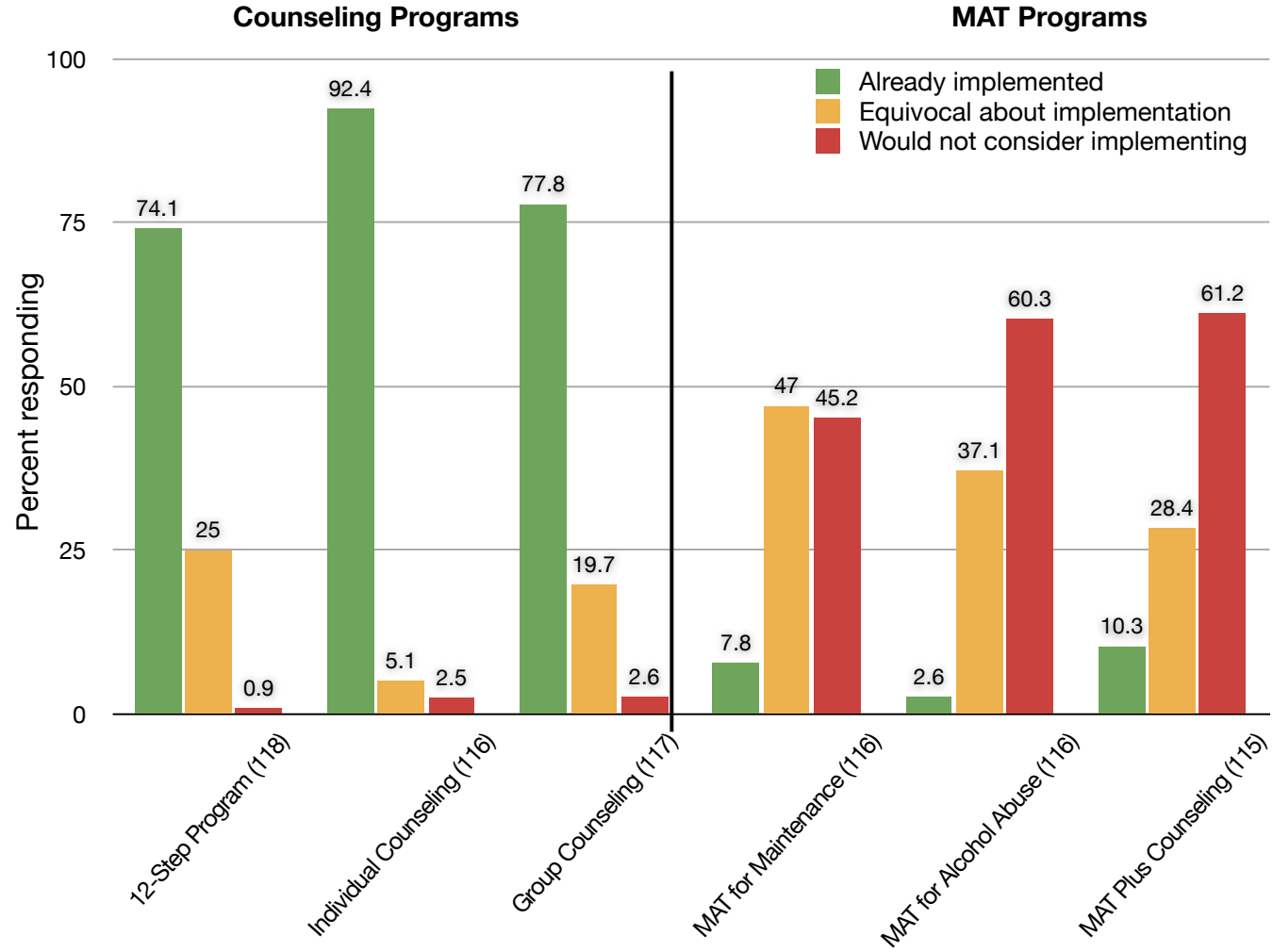
* Mean scores

Future Treatment Consideration

When asked broadly whether they would consider increasing implementation of any SA treatment programming should all barriers to doing so be removed, 93.1% of respondents indicated that they would. There was no difference between geographic groups or facility types (Tables 2 and 3, pp 35-36).

When asked about particular programs (Figure 11), roughly 60% of respondents indicated that they would not consider implementing MAT programming in the absence of counseling (either for opioid or alcohol abuse) and 45% would not consider offering MAT with counseling. In contrast, the great majority of respondents already had counseling-based programming in place (92.4% reported implementation of 12-step programs, 74.1% reported individual counseling and 77.8% group counseling) and few reported unwillingness to implement future counseling-based SA programs.

Figure 11: Current and Future Implementation of SA Programming



When the responses to program-specific questions about future implementation were divided by region, the only region in which fewer than half of respondents were opposed to implementing MAT alone for opioid dependence was the Northwest (35% opposed; see Figure 12) with the Southeast most opposed to this option (83.3%). Most regions were less opposed to MAT with counseling (23.3%-41.9%; see Figure 13), but the Southeast registered higher rates of opposition (83.3%).

Figure 12:

Percent Who Would Not Consider MAT Alone for Opioid Dependence (n=115)

- Yellow - Northeast: 50.0% (9)
 - Red - Southeast: 83.3% (25)
 - Purple - Midwest: 60.0% (18)
 - Green - Northwest: 35.0% (7)
 - Brown - Southwest: 66.7% (12)
- p=0.084

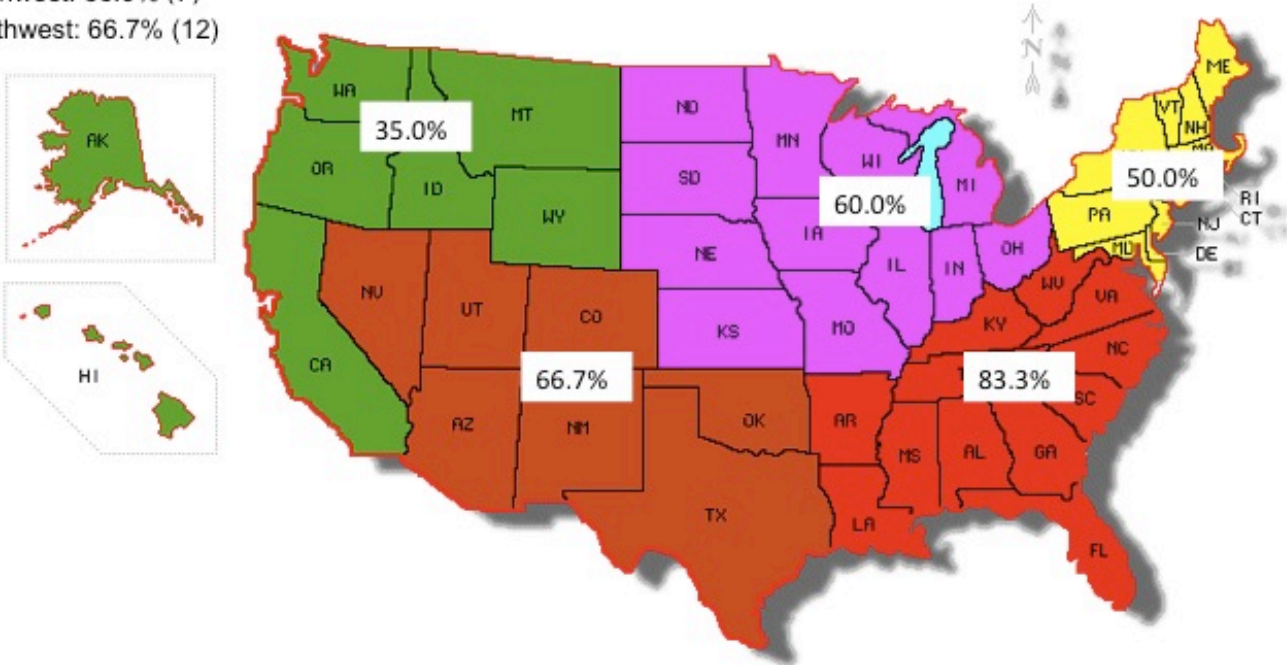
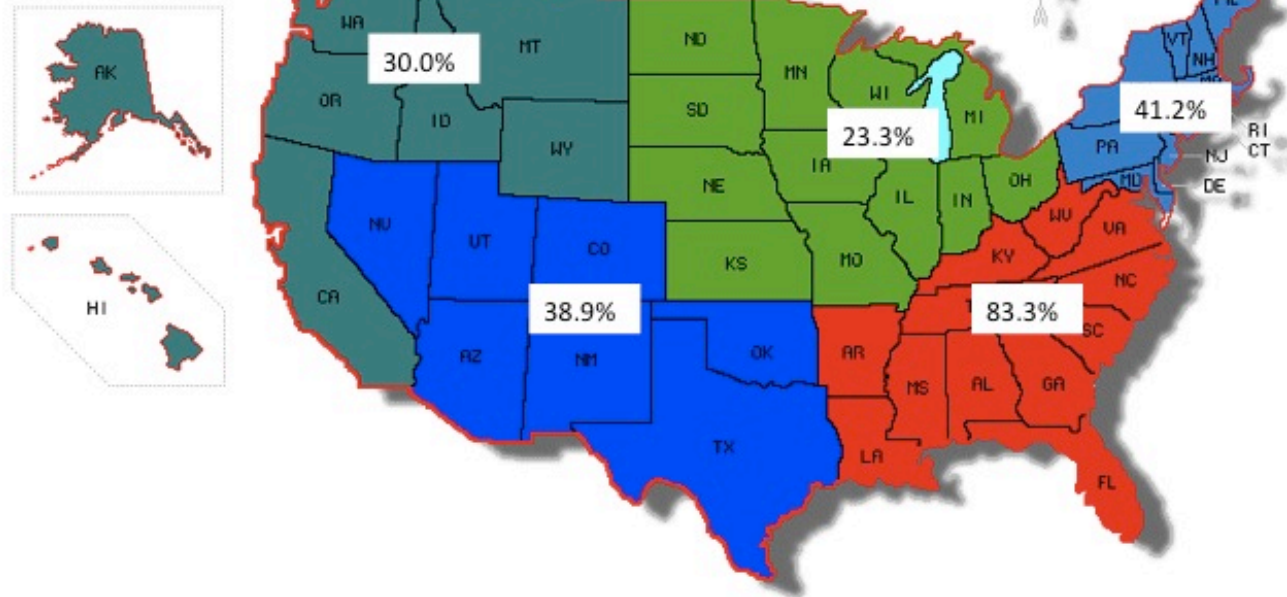


Figure 13:

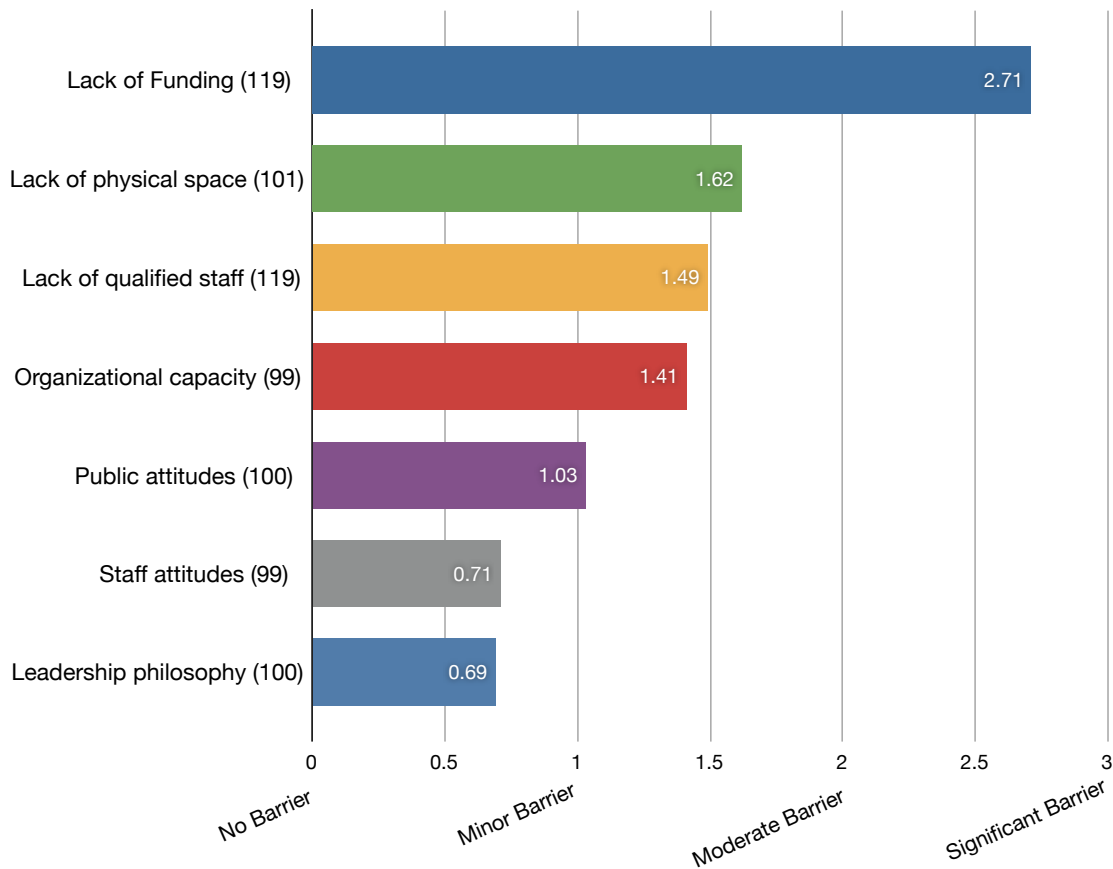
Percent Who Would Not Consider Implementing MAT with Counseling ($n=115$)

- - Northeast: 41.2% (7)
 - - Southeast: 83.3% (25)
 - - Midwest: 23.3% (7)
 - - Northwest: 30.0% (6)
 - - Southwest: 38.9% (7)
- $p < 0.001$



“Lack of funding” topped the list of perceived barriers to any possible future SA treatment programming (Figure 14) as the only barrier with a mean score near 3 (“Significant barrier”) and a median score of 3. Other barriers ranked between 2 (“Moderate barrier”) and 1 (“Minor barrier”) were “Lack of physical space” (1.62), “Lack of qualified staff” (1.49), “Organizational capacity” (1.41), and “Public attitudes” (1.03).

Figure 14: Perceived Barriers to Potential Future SA Treatment Programming



Attitudes Towards MAT

Results from regional and facility-type stratification of the combination variable of interest, “Would you consider or do you currently implement MAT?” followed similar regional trends. Respondents from the Southeast were significantly more likely than those from other regions to indicate that they would not be interested in offering or considering MAT programming ($p < 0.001$; Figure 15). There is no significant difference between facility type in whether respondents indicate that their units currently offer, or would consider offering, MAT programming ($p = 0.491$; see Figure 16).

Of note, two important variables were found to be collinear with attitude scale scores. Facility type was also found to be collinear with attitudes ($B = 0.41$; 95% CI: 0.21, 0.82; $p < 0.001$). When parsed by facility type, having reported from a jail had a significant relationship with attitudes, with a higher score resulting if the respondent were reporting from a jail ($B = 3.17$; 95% CI: 1.23, 8.18). Being a respondent from a prison or a community corrections unit was not significantly associated with attitudes scores. Knowledge scores and attitudes scores were also found to be collinear with greater knowledge predicting more positive attitudes ($B = 5.03$; 95% CI: 3.35, 6.81; $p < 0.001$).

Figure 15:

Positive Attitudes About MAT - Percent who implements or would consider MAT (n=115)

- - Northeast: 58.8% (10)
- - Southeast: 16.7% (5)
- - Midwest: 80.0% (24)
- - Northwest: 70.0% (14)
- - Southwest: 61.1% (11)

$p=0.491$

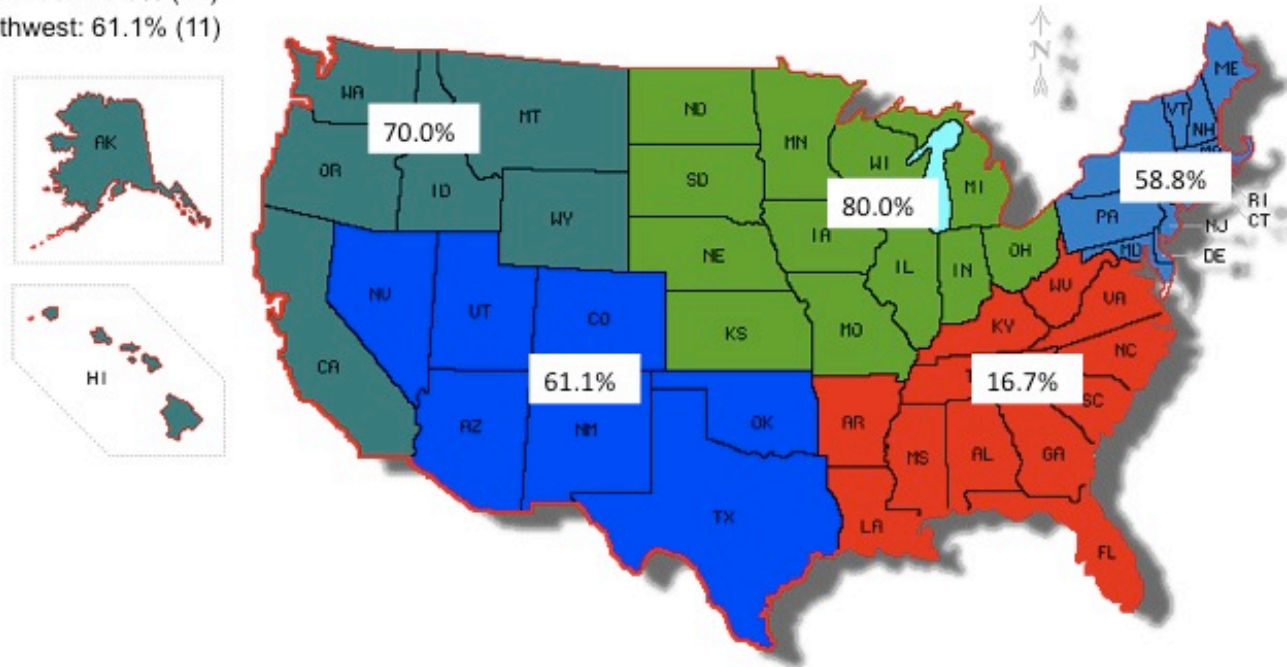
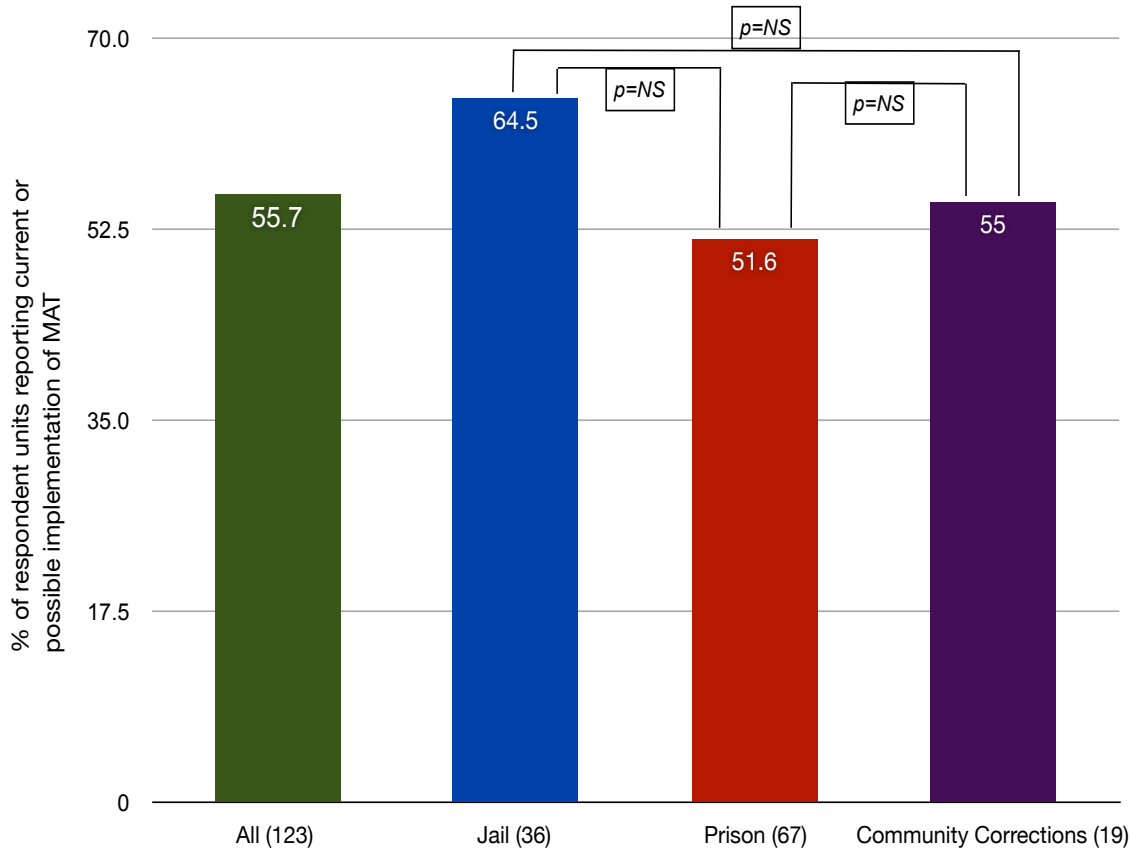


Figure 16: Positive Views on MAT – Percent who implements or would consider MAT, by Facility Type ($n=123$)



Role of Knowledge

When asked about their awareness of studies to support various SAT programs in their population, respondents indicated that counseling-based programming was more supported by the literature than MAT-based programming. They were also more likely to indicate that they were unaware of the studies of MAT-based programming (Figure 17). Using bivariate correlations, it was noted that those who responded that they were unsure about studies for

one type of MAT usually responded that they were unaware of the evidence for other kinds of MAT (Table 4). Upon further inspection, lack of knowledge about studies negatively influenced respondents' willingness to consider MAT (Table 5).

Figure 17: Awareness of Relevant Studies in Selected Areas of SA Treatment

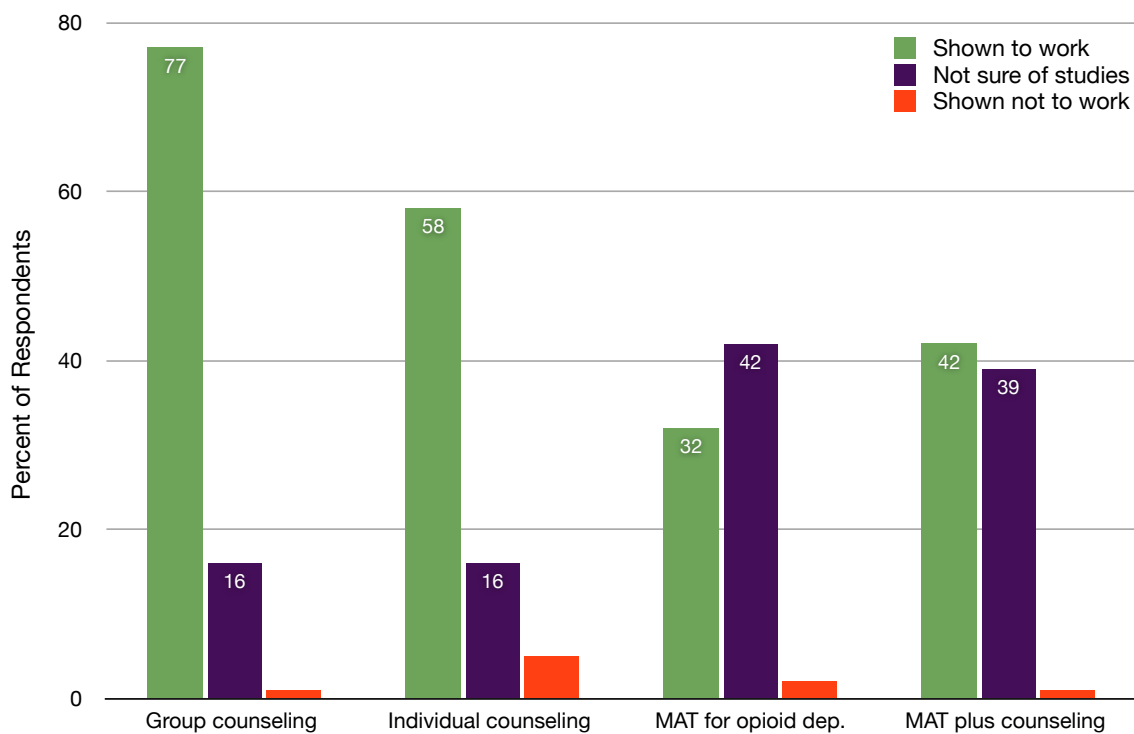


Table 4: Correlations Between “Unsure” Responses on Questions About Pertinent Studies on SA Treatment Programming

Unsure of Studies on:	MAT for treatment of withdrawal	MAT for maintenance	MAT for alcohol abuse	MAT plus counseling
MAT for treatment of withdrawal	1			
MAT for maintenance	0.957‡ n=92	1		
MAT for alcohol abuse	0.916‡ n=92	0.892‡ n=93	1	
MAT plus counseling	0.822‡ n=92	0.805‡ n=93	0.829‡ n=93	1

*=Significant at $p < 0.05$
 †=Significant at $p < 0.01$
 ‡=Significant at $p < 0.001$

Table 5: Bivariate Correlations Between Respondents Who Are “Unsure of Studies in My Population” and “Would Consider Implementation”

Would Consider:	Unsure of studies on MAT to treat withdrawal	Unsure of studies on MAT for opioid dependence	Unsure of studies on MAT for alcohol dependence	Unsure of studies on MAT and counseling
MAT to treat withdrawal	-0.383‡ n=91	-0.383‡ n=92	-0.402‡ n=92	-0.459‡ n=92
MAT for opioid maintenance	-0.219* n=91	-0.257 † n=92	-0.227* n=92	-0.303† n=92
MAT for alcohol dependence	-0.178 n=91	-0.183 n=92	-0.159 n=92	-0.212* n=92
MAT and Counseling	-0.217* n=91	-0.232 * n=92	-0.212* n=91	-0.293† n=92

*=Significant at $p < 0.05$
 †=Significant at $p < 0.01$
 ‡=Significant at $p < 0.001$

Regression Analysis of Factors Contributing to Implementation of MAT

Univariate logistic regression was performed to measure the fit of a number of covariates included in the original model (region, facility type, unit census, budget, overcrowding, organizational flux, knowledge, and attitudes; see Table 6). Two factors were significantly predictive of any MAT implementation (MTD, BPN, or NTX): Facility type ($B=0.16$; 95% CI: 0.06, 0.44) with jails more likely to implement MAT and; Attitudes score ($B=10.21$; 95% CI: 2.14, 48.72), for which a higher attitudes score was predictive of MAT implementation. An additional factor was nearly significantly associated ($p=0.06$): Percent of budget dedicated to SA treatment ($B=0.63$; 95% CI: 0.39, 1.04). In multivariate regression including these covariates as well as knowledge score (Table 6b), only attitudes score remained significantly predictive of MAT implementation ($B=6.12$; 95% CI: 1.05, 35.73)

Table 6: Covariates Contributing to Implementation or Positive Views on Implementing MAT Programming

Covariate	Implements MAT β (95% CI)	Implements or willing to consider implementing MAT β (95% CI)
Region ($n=115$)	0.50 (0.72, 1.69)	1.41 (1.04, 1.90)*
Facility type ($n=115$)	0.16 (0.06, 0.44)	0.79 (0.45, 1.39)
Average daily census ($n=111$)	1.16 (0.74, 1.81)	-0.93 (0.66, 1.30)
Overcrowded ($n=107$)	1.21 (0.36, 4.10)	0.97 (0.38, 2.49)
Total budget size ($n=97$)	1.08 (0.69, 1.69)	0.64 (0.44, 0.92)*
Percent of budget earmarked for SA treatment ($n=89$)	0.63 (0.39, 1.04)	1.238 (0.86, 1.78)
Any recent increase in SA treatment budget	0.66 (0.17, 2.53)	5.71 (1.78, 18.33)
Any recent decrease in SA treatment budget	0.10 (0.01, 0.76)	0.23 (0.10, 0.56)
Any increase in administrative staff ($n=92$)	0.00	0.97 (0.08, 11.1)
Any decrease in administrative staff ($n=92$)	0.39 (0.10, 1.49)	1.18 (0.47, 2.95)
Any increase in SA treatment staff ($n=92$)	0.00	WEIRD RESULT (8.74000000; 0.00, no upper limit)
Any decrease in SA treatment staff ($n=92$)	0.28 (0.04, 2.33)	2.07 (0.77, 5.56)
Any increase in correctional officer staff ($n=93$)	2.03 (0.36, 11.44)	3.21 (0.37, 27.95)
Any decrease in correctional officer staff ($n=93$)	0.83 (0.29, 2.40)	0.60 (0.25, 1.42)
Knowledge score ($n=86$)	1.43 (1.07, 1.9)	1.18 (0.98, 1.42)
Attitudes score ($n=86$)	1.79 (1.26, 2.53)	1.27 (1.05, 1.54)* ($p=0.015$)
Knowledge score (cutoffs) ($n=86$)	3.25 (0.85, 12.43)	0.86 (0.34, 2.19)
Attitudes score (cutoffs) ($n=86$)	10.21 (2.14, 48.72)	3.08 (1.17, 8.11)*

Table 6b: Multivariate Analysis

Covariate	Implements MAT β (95% CI)	Implements or willing to consider implementing MAT β (95% CI)
REF	1.00	1.00
Region		1.18 (0.73,1.91) NS
Facility Type	0.36 (0.10,1.31) NS	
Budget size		1.01 (0.50,2.02) NS
Percent of budget earmarked for SA treatment	0.61 (0.25,1.47) NS	
Recent increase in SA treatment budget	4.24 (0.30,59.30) NS	5.30 (1.27,22.06) $p < 0.05$
Recent decrease in SA treatment budget	0.76 (0.04,14.46) NS	
Knowledge score		0.50 (0.10,2.59) NS
Attitudes score	8.34 (1.36,51.03) $p < 0.05$	5.97 (1.48,24.06) $p < 0.05$

Regression Analysis of Factors Contributing to Implementation or Willingness to Implement MAT Treatment Programming

The same group of covariates was also tested for fit with MAT implementation with the addition of willingness to consider MAT implementation (region, facility type, unit census, budget, overcrowding, organizational flux, knowledge, and attitudes). Three factors were significant on univariate

regression: region (B=1.41; 95% CI: 1.04, 1.90); total budget size (B=0.64; 95% CI: 0.44, 0.92); and attitudes score (B=1.27; 95% CI: 1.05, 1.54).

Five factors were placed into the final multivariate model: region, facility type, budget size, knowledge score, and attitudes score. On multivariate logistic regression, only the attitudes score was significantly predictive of likely implementation or willingness to implement MAT treatment programming (B=4.93; 95% CI: 1.25, 19.52).

Discussion

This study is among the first to examine in detail the availability of MAT in the United States correctional setting. Other recent studies have examined the availability of counseling-based treatment programming(25, 61), one has examined the availability of methadone and buprenorphine in state prisons(62) but not the related factors, and one has examined some factors contributing to MAT-based programming.(75) Our findings that substance abuse-specific funding is an important factor in whether MAT-based programming is implemented is unique. Our finding that administrator knowledge and attitudes play an important role in whether MAT is available in their system and in whether they would consider MAT coincide with Friedmann's work.(61, 75) The apparent interplay of positive attitudes towards methadone with substance-abuse-specific funding in administrators' willingness to consider MAT-based therapy in their units is also a unique and compelling finding.

Lack of MAT Availability

Our study reports the availability of programming, not the utilization of programs. Other studies have focused more on actual utilization and this work indicates that relatively few inmates are receiving treatment of any kind (22, 25), and even if significant advances were made in the intervening 5 years between these studies, the broad trend would still likely hold true.

With respect to MAT-based SAT programming in particular, our study revealed 20% implementation of any MAT (MTD, BPN, or NTX) and 15.7% of respondents indicating that they provide methadone, results which are discordant with the two past studies to look at MAT availability in the correctional setting. The study by Nunn, et al reported that 55% of state prison administrators stated that methadone was provided in their facilities. Over half of these facilities further indicated that methadone was solely used for acute withdrawal management, as pain medication, or for pregnant women, a ratio somewhat closer to that which was observed in this study. Our results, obtained largely from units instead of state agencies and from a wider array of facility types, indicate that methadone is far scarcer than what is indicated by Nunn, et al.(62) This may indicate a gap between stated policy on MAT availability and actual practice “on the ground.” Additionally, this study only had one respondent per state and response bias may have influenced the findings as respondents were easily identifiable.

Friedmann, et al also noted a much higher use rate of MAT (83% in both jails and prisons) for opioid withdrawal.(75) However, this definition included clonidine to alleviate opioid withdrawal symptoms. When focusing more particularly on opioid replacements (MTD or BPN), the study by Friedmann found that roughly 50% of jails and prisons reported implementing methadone or buprenorphine and that fully 25% of each reported policies of continuing opioid replacement therapy if an individual entered their facility in a treatment program – about twice the rate of MAT for opioid-related therapy as found in our study. One mitigating factor is that Friedmann’s study population was drawn from a select

group of correctional agencies using the CJ-DATS study group. This group tends to be associated with academic centers and is likely to be more oriented to evidence-based practice than the broad, national sample that we drew from. This population is also more skewed to the Northeast and may not include units from less MAT-friendly parts of the country. Of note, the Friedmann study did not comment on the geographic origin of their respondents.

Neither these two studies nor our study indicates adequate MAT implementation, however. Given the longstanding and desperate need for measures that reduce the population of imprisoned drug users, the lethal danger of overdose in the population of drug-dependent releasees(18), and the cost to society of untreated chemical dependency, the continued lack of availability of this evidence-based treatment is disappointing. The trend towards a lack of EBP in correctional settings is, unfortunately, common. Friedmann, et al reported a similar lack of evidence-based practice in their 2006 article, which analyzed the National Criminal Justice Treatment Protocol (NCJTP) database searching for EBP. They found that corrections-based drug abuse programming, when in place, was on average <60% evidence-based practice.

There is reason to believe that concerted efforts geared towards systemic change can alter the constellation of services available to inmates, however. Mumola reported that between 1997 and 2004, the number of inmates receiving any drug treatment in federal prisons had nearly doubled.(76) During this period, a call to action had been taken up and pressure on correctional agencies to provide some form of treatment had begun to coalesce. It is reasonable to hope,

then, that efforts at raising the call for increased uptake of evidence-based treatment in the correctional system will result in substantive change, albeit perhaps slowly.

Bias Towards Counseling-Based Treatment Programming

In this study, the correctional system's tendency to prefer counseling-based treatments is evident. While these do constitute some of the EBP that have been studied in correctional populations, there continues to be resistance to MAT-based programming, despite solid evidence for its use. Conversely, rates of implementation of counseling-based programs are high and the resistance to implementing future counseling-based treatment is low nationally and across facility types. Studies by Friedmann and Taxman, both using the NCJTP instrument, and this author's literature review for this work indicate that the correctional literature largely focuses on 12-step programming, Therapeutic Communities, and case management for SA treatment.(25, 61) While evidence does support the effectiveness of some of these counseling-based treatments in correctional systems (though not 12-step programming, the most commonly available "treatment"), community-based studies of SA treatment consistently show that MAT is superior across a range of treatment outcomes. This generally indicates a trend that is seen further in this study that there is currently greater favor given to counseling-based programming and a lack of willingness to even consider MAT. This trend may be visible when respondents were asked to consider the possibility of implementing MAT alone or with counseling.

Respondents were more likely to be willing to consider MAT with accompanying counseling than MAT alone. Whether this is because of an understanding of the evidence in the literature supporting MAT with counseling over MAT alone was not possible to determine.

Differences Across Facility Types

Interestingly, the use of MAT in corrections appears to be partially explained by the kind of facility within the correctional system in which treatment is being provided. Generally speaking, jails hold individuals for a shorter period of time (anywhere from hours to weeks or a few months) than prisons (usually for sentences on the order of many months to years) and are the location of the initial contact that an offender has with the system. In the jail setting, then, there is more likelihood that an individual would go through withdrawal or be dropped from their maintenance therapy (if they are enrolled in an opioid replacement therapy program) compared to the prison setting. Jail administrators thus see a unique pressure to provide MAT that prisons lack.

In prison, individuals have often been “detoxed” at the jail level before sentencing, and thus there is very little perceived need to provide maintenance therapy. Community corrections units often receive individuals once they have been released on parole from a prison sentence and so in this regard, they see somewhat of a similar population as that seen in prisons. Community corrections agencies also monitor those on probation, an alternative to prison, but in the absence of continuation of methadone therapy in the local jail, individuals

released to probation are also often not maintained on MAT, having been detoxed in jail. This is borne out in our results in which a most of the respondents who indicated that they do not have individuals who would benefit from MAT were community corrections respondents.

Thus, jails are the only units that receive individuals who are either currently physically addicted to a substance or maintained on a dose of MTD or BPN. This is borne out in the distribution of MAT and in the univariate analysis. The fact that attitudes towards methadone are higher amongst those administrators responding from a jail may indicate that more familiarity with MAT results in more positive feelings about its potential usefulness. Similar to the bias towards counseling-based treatment in the majority of the sample, these results point to the fact that as an institution becomes familiar with a mode of treatment, their comfort increases and their attitudes become more positive.

Friedmann, et al(75) and Taxman(25) did find similar absence of MAT in community corrections environments. Friedmann found greater presence of MAT in prisons than our study found, however, in a proportion equaling that of jails. They also did find that prison-based respondents indicate that they prefer drug-free treatment more than jail-based respondents, which tends to be in keeping with our findings that jails appear more open to MAT-based programming.(75)

Of note, the same study by Friedmann found that there was no difference across facility types regarding openness to considering MAT-based programming. Our study found a similarly common level of openness to MAT across facility types, indicating that while the institutional pressures on each kind

of facility and the current distribution appears different, all correctional facility administrators view some role for MAT-based programming. This is an easily-missed but important result from our study.

Regional Differences

One particularly interesting trend in the data is regional variation that runs throughout. This is first noticeable in the response rate from each region, which strongly favors the Midwest. The Southeast was less likely to provide any MAT, while the Northwest and Northeast, on the other hand, were both more likely to provide MAT than other regions. The 2009 survey by Nunn, et al notes a similar regional difference in methadone and buprenorphine availability.(62) Additionally, a majority of respondents in all other regions other than the Southeast were willing to consider providing MAT if they didn't already provide it.

When willingness to provide MAT was parsed by particular program, it appeared that respondents in the Northwest were more willing to provide MAT for opioid maintenance therapy without counseling, but that this difference lessened if counseling were added to the programming (perhaps further evidence that respondents are more comfortable with counseling than with MAT alone). Respondents from the Southeast, however, stated opposition to any MAT-based treatment programming. This trend is borne out into the univariate regression analysis in which region is a significant, albeit minor, predictor of positive stance towards MAT (either current or potential future implementation). Interestingly, Southeastern respondents also indicated the highest percentage of those

reporting recent program expansion. Of note, neither Taxman nor Friedmann's work stratified responses by region.

The strength of this pattern may point to the effects of a regional difference in drug use patterns that drives local treatment patterns. Some areas of the country have lower heroin and prescription opioid addiction rates compared to other drugs of abuse (cocaine, methamphetamine, alcohol, etc). However, very few respondents indicated that their facilities do not have individuals who would benefit from MAT and these responses were evenly spread across regions. Thus, this is an unlikely explanation for the variation seen.

Simply by offering a treatment, institutions may become more comfortable with it and be more open to using it in the future. These regional patterns may indicate that respondents in the Southeast have not reached the same level of comfort with or knowledge about MAT simply because of the fact that this treatment is not used in this region. A number of respondents noted on the returned survey forms that they do not provide methadone simply because it has not been a part of programming in the past. This trend may change if education or pilot programs are implemented locally that alter local levels of awareness about how MAT works.

This regional trend may also be reflected in the regional skew seen in the landmark studies and policy interventions utilizing MAT in the correctional setting. The studies by Kinlock, et al were performed in Baltimore, Magura's work was done at Riker's Island in New York, and Dolan's work was done in Australia.

California, Washington, New York and Arizona are the states most notable for taking progressive stances towards drug abuse treatment in correctional settings.(15, 49, 77, 78) The Southeast, then, may simply have less exposure to MAT as a treatment possibility. Even though region was not found to be a significant covariate in multivariate analysis, an understanding of which regions of the country are in most need of intervention to encourage evidence-based SAT will help those seeking to encourage that change focus their efforts on areas with the greatest need. As exposure to MAT increases, knowledge about it and attitudes towards it may also change.

Differing Role of Funding

Our initial hypothesis was that funding would stand as the most significant contributor to changes in treatment implementation. Our study was done in the context of a massive economic downturn with accompanying budget cuts all around the country in state budgets as well as in correctional systems' substance abuse treatment services (including the defunding of Proposition 36 in California). (79) These cuts have decimated state-funded SAT programming. In the wake of cuts in California, one insider noted, "I think that policy makers now understand the cost benefits of treatment, but are trying to cope with a massive short term deficit." (79)

In keeping with this empiric understanding, in our survey, funding availability was reported as the greatest contributor to program closure and decrease, and was viewed as the most important potential barrier to future

treatment. When respondents who reported program increase were asked to rank possible contributors to that increase, funding was less important than offender need and equally important as leadership attitudes. This indicates the complex nature of funding as a contributor to programming. Empirically, this makes sense: if money disappears, a program must close, regardless of how much it may be needed; if leadership at an institutional level demands programming, available funds may be shifted towards this new priority, thus causing expansion. Population pressure on the system, as measured by the responses, “excess offenders requiring treatment” and “recidivism reduction,” puts pressure on leadership to promote effective ways of reducing inmate populations. Substance abuse treatment and diversion are proven methods of accomplishing this aim, and likely contribute to the attitudes of leadership towards instituting more treatment programming. In this way, funding is a necessary ingredient to program implementation, but not the only one.

In both univariate and multivariate analysis, size of budget and amount of budget allocated to SA treatment were not significantly associated with MAT implementation or willingness to implement MAT. Interestingly, SA budget flux was predictive of both in univariate analysis: SA budget decrease was predictive of current MAT implementation and SA budget increase was predictive of current implementation of or willingness to implement MAT. In multivariate analysis, SA budget increase remained a significant predictor of MAT implementation and willingness to implement MAT, along with respondent attitudes towards MAT. This relationship suggests that the above hypothesis is true: with increased

funding and positive administrator attitudes, the possibility of implementing MAT becomes greater.

Notably, this relationship doesn't hold through when looking at the influence of SA-specific budget increase on current MAT treatment implementation. This is likely due to insufficient response (so few respondents had both a recent increase in SA funding and currently provide MAT). It is possible also that the level of SA funding currently available is still too low to sufficiently encourage MAT implementation, pointing to the need to increase SA-specific funding, and specifically for evidence-based treatment.

For as big of a problem as substance abuse is, very little of respondents' budget is set aside specifically for SAT (median fraction dedicated to SAT was 0.4% of the total budget; Table 1). Empirically, this is likely because correctional institutions often place SAT programming within another part of the budget – most commonly, it falls under medical or inmate programming. A simple intervention to protect SAT programming and to raise its profile within correctional institutions may be to create an explicit line of an agency's budget for it. The import of a suggest that this activity of setting aside SA treatment-specific funds is *vital* to contributing to an environment in which administrators feel comfortable considering MAT implementation.

None of the three other recent major surveys covering SAT in the correctional setting look at actual funding levels for substance abuse treatment. The NCJTP- based studies (Taxman, 2007 and Friedmann, 2006) queries respondents' attitudes towards current funding levels for programming, but does

not ask for dollar amounts separate from administrator attitudes. This entangles the coexistent possibilities that an administrator may have insufficient funds and believe them to be enough (because of a bias against SAT in correctional settings) or for an administrator to view comparatively ample funding skeptically. By separating these variables, our survey achieves a higher degree of specificity with regards to the role of funding. The survey by Nunn, et al did not publish any funding-related factors.

Role of Attitudes in MAT Implementation

Contrary to our hypothesis, the most significant contributor to current MAT implementation is respondent attitude towards methadone. This finding is in keeping with the general pattern that appears in our data: funding appears to be an important factor insofar as it is a necessary ingredient to program existence. Once funding is in hand, the preferences and attitudes of the administrators allocating the funding then become more important predictors of the shape that funding actually takes.

Scores on the attitudes scale were also found to be collinear with scores on the knowledge scale, suggesting this may be the reason knowledge was not predictive of MAT implementation in multivariate regression. In Friedmann's 2006 study of the implementation of evidence-based practice (EBP) in NCJTP-surveyed units, it was found that attitudes towards EBP were the best predictor of their implementation. This group also found that knowledge and attitudes trended together as independent positive predictors of EBP implementation.

Role of Knowledge

Knowledge about MAT and awareness of the studies around MAT in corrections has a significant impact on whether respondents would consider implementing MAT programming in various settings. Our data indicates that there is a group that is collectively unaware of the studies on MAT. Moreover, if a respondent reported being unaware of studies on a particular use of MAT in their population, they were also less likely to report willingness to consider implementing MAT. Considering lack of knowledge contributes to a negative stance on MAT, and our finding that there appears to be a cohesive group that is not aware of the literature on MAT, a simple knowledge dissemination intervention could be employed, targeted to this group, to effectively alter this.

Friedmann, in his 2006 and 2012 studies, reported important roles for knowledge in implementation of evidence-based practice.(61, 75) In their 2012 study, his group found that a respondents' stated lack of knowledge about MAT was associated with a lack of implementation at that respondent's facility. Conversely, in 2006, reported knowledge was reported to be positively correlated with implementation of EBP. In 2012, they found that stated knowledge about MAT was the only factor positively associated with an interest in the future implementation of MAT-based programming. Although "knowledge" as we measured it did not take as primary a role in predicting this in our study, the co-linearity of knowledge and attitudes points to a common pathway and a clear importance of both knowledge and its influence on attitudes.

Limitations

The main limitation of this study lies in response rate. As mentioned in the methods section, response rates of organizations tend to be lower(73), and may be lower for the above reasons. Furthermore, a large study of surveys conducted by academic centers (as opposed to private or corporate survey entities) revealed an average response rate of 55.9% over the years 1975-1995, with a decline in average response rate over the years (average response rate was down to 48.4% in 1995). The subset of academic surveys of administrators or of organizations fared far worse than average with a mean response rate of 36.1%.(80) Considering this, the obtained response rate (54.9%) was comparatively optimal for studies of its kind. However, 45.1% of those surveyed did not respond and the possibility of bias in the results obtained is very real. There are many reasons that response in this study may have been limited.

One major confounding factor in this analysis is that two out of the five largest state correctional administrations (composing 12.9% of the total random sample) declined to respond to the survey because of decisions made by the research review board in each state. Had these large departments contributed a response, no significant difference in regional response rate would have been observed, and the total response rate would have reached 67.8%. The inclusion of responses from these large institutions would also potentially have had significant effect on the final analysis if their responses differed from other

respondents' in their respective regions. Thus, their absence may point to a significant response bias.

The content of the survey itself may have been an impediment to response rate. One comment received from many participants was that the survey itself was too lengthy and time consuming to complete. Many respondents also noted that it was too wide-ranging for one person to complete – the expertise of multiple members of an organization would be called upon to give accurate responses and this resulted in greater strain than anticipated.

We also asked questions that were possibly viewed as possibly confidential information – we often received incomplete or absent data for our questions about budgets and substance abuse outlays within them as well as for our questions about methadone knowledge and attitudes. This is likely a manifestation of one of the liabilities of organizational surveying identified by Tomaskovic, et al. As correctional agencies are highly hierarchical, individuals within them were less likely to be “empowered ... to have the authority to respond” to such questions within our survey.(73) Furthermore, this organizational restriction on individual empowerment seems to permeate the overarching structure within which local correctional units operate: many units declined to respond because they were limited by state structures and some units' responses were received as a part of a larger response from an overarching state agency.

Organizational heterogeneity between state correctional agencies and between the three main kinds of correctional organizations that we surveyed

made it difficult to obtain responses because the appropriate respondent in each organization was not analogous across organizations (i.e. the “Director of Inmate Services” would be the appropriate respondent at one organization where the “Health Services Manager” would be the appropriate respondent at another location). In general, this made targeting of the survey difficult and so we relied on the organization to direct the survey to the appropriate respondent(s) within their structures. Often, the complexity of our survey was thus an impediment to receipt of a response; multiple respondents were necessary in many organizations and this resulted in many surveys “falling through the cracks” between individuals and certainly contributed to the low response rate.

Budget cuts all around the country in state budgets as well as in correctional systems’ substance abuse treatment services (including the defunding of Proposition 36 in California) (79) have decimated state-funded drug abuse treatment. One commentator on the aftermath of these cuts remarked, “I think that policy makers now understand the cost benefits of treatment, but are trying to cope with a massive short term deficit,” (79) indicating that budget deficits there have overridden the positive gains in knowledge and attitudes that came with new programming.

This sentiment is reflected in our responses. It also may have played a role in increasing the difficulty of obtaining responses from our sample. Many of the respondents had to be emailed and called many times in order to obtain a response and often, these responses were incomplete. Several large agencies refused entirely to participate because of staff and resource limitations.

Other factors may have also influenced response, such as bias for substance abuse treatment in corrections compared to no treatment. This possibility is supported by the fact that 100% of respondents said that they feel that substance abuse treatment programming has a place in the correctional system, and rated substance abuse treatment in the correctional system as a 9.25/10 in importance. It is possible that potential respondents who feel that treatment does not belong in the correctional system did not respond and that a significant proportion of non-respondents would have given a different response. Given the proven efficacy of and need for substance abuse treatment in corrections and the strong mandate from national organizations,(66, 67) this seems less likely, however.

Future Directions

In sum, our research, taken alongside other recent surveys exploring factors related to the availability of evidence-based practice, points to the necessity of testing and implementing several simultaneous approaches to ensconcing the place of EBP in the correctional environment. Firstly, SAT programming should be preserved as a distinct line in correctional budgets. The primacy of the issue of substance abuse in correctional populations is a clear argument for this and our data indicates that SAT-specific funding increases are independently related to robust treatment programming implementation.

Secondly, an educational program for correctional administrators should be devised and piloted with the aim of improving attitudes towards MAT and EBP

based at least in some part in knowledge dissemination. Alongside this should be a further study of the underlying aspects of positive and negative attitudes, with the results of these informing interventions. It is well-understood that factual knowledge itself is often not sufficient to encourage behavioral change and that providing an experiential understanding of MAT in a correctional setting may positively contribute to this effort of raising attitudes about MAT. This study of institutional and individual change would additionally be of broader interest and applicability to those working towards change in other large, entrenched organizations.

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Appendix 1: Survey Instrument

Key Terms

Substance use disorders – Addiction to or dependence on illegal drugs like opiates (heroin), stimulants (methamphetamine, cocaine), or legal drugs like alcohol or prescription drugs (oxycontin, valium).

Medication-Assisted Therapy (abbreviated MAT) – Treatment for substance use disorders that centers on *medications*. Examples: Buprenorphine, methadone, naltrexone.

Screening – Looking for the possible presence of a Substance Abuse condition BUT not assigning clinical designations.

Assessment – Performed by a trained, experienced professional resulting in a clinical diagnosis

Section 1: Background Information

Facility Attributes

F1. What is the average daily population of your facility or probation/parole office in 2009?

Please use complete figures from 2009

a. Number of administrators:	
b. Total number of staff (include part and full time):	
c. Average daily census of inmates:	
d. Number of facilities or offices (<i>Circle one</i>):	1-3 3-5 5-7 >7
e. Number of offenders released on parole/probation/supervision for whom your staff are responsible:	

F2. What is your ideal maximum capacity?

Please sum the official capacities of all buildings in your system

F3. What was your total annual operating budget for 2008-09?

Please round to the nearest \$1,000

\$ _____

F4a. What is the dollar amount of your annual operating budget in 2008-09 that was allocated specifically for treatment of substance abuse/dependence disorders?

approx \$ _____

F4b. Since 2006, has this amount:

1. Increased by approximately \$ _____

2. Decreased by approximately \$ _____

3. Stayed about the same (*Check*)

Section 2: Current Practices

C1. Does your facility currently offer substance abuse treatment services?

(Circle) Y / N

If yes, continue to question C2. If no, skip to question C5, below

C2. Is there a standardized system by which eligibility for substance abuse treatment services is determined?

(Circle) Y / N

C3. Is there a standardized system by which referral to treatment is made?

(Circle) Y / N

C4. Which of the following characteristics influences who gets these services:

a. Severity of the offender's addiction?	(Circle) Y / N
b. Length of stay of the offender?	(Circle) Y / N
c. Presence of mental illness?	(Circle) Y / N
d. Interest on the part of offenders?	(Circle) Y / N
e. Other, indicate:	

C5. Below is a list of common activities between agencies. Please check all activities that apply to your working relationship with treatment programs, the judiciary, and other criminal justice agencies on issues specific to offender substance abuse treatment.

(Check all that apply for each row)

	Substance abuse treatment programs	Judiciary	Jail/prison <u>or</u> community corrections
a. We share information on offender needs for treatment services	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
b. Our organizations have agreed to similar requirements for program eligibility for some programs	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
c. We have written agreements providing space for substance abuse services for some programs	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
d. We hold joint staffings/case reporting consultations	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
e. We have developed joint policy and procedure manuals	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
f. Our organizations have pooled funding for some offender substance abuse services	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
g. We have modified some program/service protocols to meet the needs of each agency	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
h. We share budgetary oversight of some treatment programs	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
i. We share operational oversight of some treatment programs	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
j. Our organizations cross-train staff on substance abuse issues	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
k. We have written protocols for sharing offender information	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃

C6. Do you currently provide methadone maintenance therapy for offenders who meet criteria for opioid dependence: (Circle) Y / N

If yes, please go on to question C7. If no, please skip to question C9a, below.

C7. How many offenders per year receive methadone maintenance? _____

C8a. Are you generally satisfied with methadone treatment? (Circle) Y / N

C8b. Does your organization have substance abuse treatment-related performance-based contracting in place? (Circle) Y / N

C8c. Does your organization receive free methadone in exchange for providing services? (Circle) Y / N

C8d. Are there guaranteed slots in community clinics that are set aside for individuals treated with methadone maintenance in your system? (Circle) Y / N

Please indicate which of the following apply to why you don't provide methadone maintenance therapy:

C9a. There are not offenders in our system who have been dependent on opioids (heroin, prescription pain killers, methadone) (Circle) Y / N

C9b. Licensing regulations to prescribe methadone are too costly (Circle) Y / N

C9c. Methadone is too highly regulated and thus providing it would be very difficult (Circle) Y / N

C9d. Methadone would be too easily diverted and abused within our system (Circle) Y / N

C10. Do you currently provide buprenorphine (BPN) treatment for offenders who meet criteria for opioid dependence: (Circle) Y / N

If yes, please go on to question C11. If no, please skip to question C13a, below.

C11. How many offenders per year receive buprenorphine (BPN) _____

C12a. Are you generally satisfied with BPN treatment? (Circle) Y / N

C12b. Does your organization have substance abuse treatment-related performance-based contracting in place? (Circle) Y / N

C12c. Does your organization receive free buprenorphine in exchange for providing services? (Circle) Y / N

C12d. Are there guaranteed slots in community clinics that are set aside for individuals treated with BPN in your system? (Circle) Y / N

Please indicate which of the following apply to why you don't provide BPN:

C13a. There are not offenders in our facilities who have been dependent on opioids (heroin, prescription pain killers, methadone) (Circle) Y / N

C13b. Licensing regulations to prescribe BPN are too costly (Circle) Y / N

C13c. BPN is too highly regulated and thus providing it would be very difficult (Circle) Y / N

C13d. BPN would be too easily diverted and abused within our system (Circle) Y / N

C14. Do you currently provide naltrexone treatment for offenders who meet criteria for alcohol dependence:

(Circle) Y / N

If yes, please go on to question C15. If no, please skip to question C17a, below.

C15. How many offenders per year receive naltrexone in the:

a. Oral Form (ReVia) _____ b. Injectable Form (Vivitrol) _____

C16a. Are you generally satisfied with naltrexone treatment? (Circle) Y / N

C16b. Does your organization have substance abuse treatment-related performance-based contracting in place?

(Circle) Y / N

C16c. Does your organization receive free naltrexone in exchange for providing services? (Circle) Y / N

C16d. Are there guaranteed slots in community clinics that are set aside for individuals treated with naltrexone in your system? (Circle) Y / N

If no, please briefly describe why you don't provide naltrexone:

C17a. Cost of drug is prohibitive (Circle) Y / N

C17b. Personnel limitations (needs to be given by medical staff) (Circle) Y / N

C17c. Other _____

C18. By your estimation, have there been any significant change in staffing levels recently within your correctional system?

(Circle) Y / N

(If yes, continue to C19. If no, skip to question C20)

C19. Please check the appropriate box next to each staff type

Staffing type	Increased	Unchanged	Decreased
a. Administrative staff—management	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
b. Administrative staff—support	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
c. In your prison/jail facility, corrections/custody/security staff	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
d. Clinical staff—management	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
e. Substance abuse assessment staff (who do not do counseling)	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
f. Substance abuse clinical staff (include assessors if they also do counseling)	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
g. Other clinical staff (social workers, vocational or mental health counselors, etc.)	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
h. Case managers/resource brokers	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀

C20. In the past two years, have any substance abuse treatment programs in your organization...

Please ✓ all that apply

₂ Been closed? ₁ Had treatment beds or slots reduced? ₀ Neither

If neither, skip to question 23

C21. If there has been a reduction, identify up to three factors that contributed most to the reduction

Choose up to three factors from the list below

- ₁ Funding cuts due to state deficit or other budget problems
- ₂ Low offender buy-in for drug treatment programs
- ₃ Failure of programs to achieve success
- ₄ New legislation/policy prevented further use of treatment
- ₅ Too many offenders with mental health problems
- ₆ Leadership dissatisfaction with treatment program(s)
- ₇ Not enough offenders eligible for program(s)
- ₈ Offenders not in facility long enough to justify treatment
- ₉ Offenders in facility for too long to justify treatment; use detoxification instead
- ₁₀ Prefer drug-free method over MAT
- ₁₁ No proof that MAT works in your population of offenders
- ₁₂ Released individuals with substance abuse/dependence in prison to the community to save costs on treatment
- ₁₃ Insufficient space for treatment programs
- ₁₄ Other (*specify*) _____

C22. With the factors listed above in question C21 in mind, please rank them using the scale below to indicate their influence on your programming.

- 1 – Presents a major problem
- 2 – Presents a minor problem
- 3 – Presents no problem at all
- 4 – Can't say either way

Factor	Rank
a. Funding cuts due to state deficit or other budget problems	
b. Low offender buy-in for drug treatment programs	
c. Failure of programs to achieve success	
d. New legislation/policy prevented further use of treatment	
e. Too many offenders with mental health problems	
f. Leadership dissatisfaction with the treatment program	
g. Not enough offenders eligible for the program	
h. Offenders not in facility long enough to justify treatment	
i. Offenders in facility for too long to justify treatment; use detoxification instead	
j. Prefer drug-free method over MAT	
k. No proof that MAT works in your population	
l. Released individuals with substance abuse/dependence in prison to the community to save costs on treatment	
m. Insufficient space for treatment programs	
n. Other (<i>specify</i>) _____	

C23. In the past two years, have any substance abuse treatment programs in your organization...

(✓ all that apply)

₂ Been opened? ₁ Had treatment beds or slots increased? ₀ Neither

If neither, skip to question 23

C24. If so, identify up to three factors that contributed **most** to programs being opened or increased:

Check next to up to three factors on the list below

- ₁ New funding from federal agencies
- ₂ New funding from state government
- ₃ Positive attitude of correctional staff toward treatment programs
- ₄ Excess number of offenders needing treatment services
- ₅ New leadership that supports the expansion of treatment
- ₆ Realization that treatment can reduce recidivism
- ₇ Other (*specify*) _____

C25. With the factors listed above in question C24 in mind, please rank them using the scale below to indicate their influence on your programming.

- 1 – Major contributor to increase*
- 2 – Minor contributor to increase*
- 3 – Not a contributor to increase*
- 4 – Can't say either way*

Factor	Rank
New funding from federal agencies	
New funding from state government	
Positive attitude of correctional staff toward treatment programs	
Excess number of offenders needing treatment services	
New leadership that supports the expansion of treatment	
Realization that treatment can reduce recidivism	
Other (<i>specify</i>) _____	

Section 3: Perspectives About Current and Future Substance Abuse Treatment

P1. How would you assess the following potential barriers to implementing new programs/policies focused on substance dependent offenders?

Please rank the barriers below in order of impact on your ability to implement new programming. When ranking, please choose only one rank (along the top) per barrier (listed down the left-hand column). Please fully check one box. Please do not check between boxes.

	No barrier	Slight barrier	Moderate barrier	Significant barrier
a. Qualified staff	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
b. Funding	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
c. Leadership philosophy	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
	No barrier	Slight barrier	Moderate barrier	Significant barrier

d. Staff attitudes	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3
e. Public attitudes	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3
f. Organizational capacity	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3
g. Physical space	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3
h. Other (Please specify) _____	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3

P2. Given the list of programs below, which barriers would present a *major* obstacle to implementation of new programs/policies focused on substance dependent offenders in your organization?

Please ✓ the box next to each of the program types (listed in the left-most column) and underneath the appropriate existing barrier(s) (listed across the top).

Mark up to three barriers per program. If no barrier exists, please indicate that by checking the box under No barrier exists

Programs	Barriers to Implementation									
	Qualified staff	Funding	Leadership philosophy	Staff attitudes	Public attitudes	Organizational capacity	Physical space	Other (Please specify)	_____	No barrier exists
a. Narcotics or Alcoholics Anonymous	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5	<input type="checkbox"/> _6	<input type="checkbox"/> _7	<input type="checkbox"/> _8	<input type="checkbox"/> _9	<input type="checkbox"/> _0
b. Individual counseling	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5	<input type="checkbox"/> _6	<input type="checkbox"/> _7	<input type="checkbox"/> _8	<input type="checkbox"/> _9	<input type="checkbox"/> _0
c. Group counseling	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5	<input type="checkbox"/> _6	<input type="checkbox"/> _7	<input type="checkbox"/> _8	<input type="checkbox"/> _9	<input type="checkbox"/> _0
d. Medication to treat withdrawal	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5	<input type="checkbox"/> _6	<input type="checkbox"/> _7	<input type="checkbox"/> _8	<input type="checkbox"/> _9	<input type="checkbox"/> _0
e. Medication to provide maintenance therapy	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5	<input type="checkbox"/> _6	<input type="checkbox"/> _7	<input type="checkbox"/> _8	<input type="checkbox"/> _9	<input type="checkbox"/> _0
f. Medication to treat alcohol dependence	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5	<input type="checkbox"/> _6	<input type="checkbox"/> _7	<input type="checkbox"/> _8	<input type="checkbox"/> _9	<input type="checkbox"/> _0
g. Medication to treat cocaine dependence	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5	<input type="checkbox"/> _6	<input type="checkbox"/> _7	<input type="checkbox"/> _8	<input type="checkbox"/> _9	<input type="checkbox"/> _0
h. Medications plus counseling	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5	<input type="checkbox"/> _6	<input type="checkbox"/> _7	<input type="checkbox"/> _8	<input type="checkbox"/> _9	<input type="checkbox"/> _0

P3. If all barriers to doing so were removed, would you like to add new treatment programs or increase capacity for substance dependent offenders in your facility?

Yes No

If no, please skip to question P5

P4. What goals would you be satisfying if you were to implement new treatment programs for substance

dependent offenders?

Understanding that each item is important, please rank the choices in order of priority from 1 (highest) to 5 (lowest). We want to know which of the goals holds most importance for your organization. Please only assign one rank per choice.

- a. Reduced recidivism in your jurisdiction ____
- b. Reduced substance use in facility ____
- c. Rehabilitation of the offender ____
- d. Cost-Effectiveness ____
- e. Other (Please specify) _____

P5. Now you will be asked to consider a list of possible treatment plans for substance abusing offenders. Indicate whether you would implement, would consider implementing, or would not implement such a program.

Note: When giving your answers, imagine no restrictions on the possibility of implementing a program/policy. Please only check one box below the appropriate option corresponding to each program type. If you already provide the program, check Already Implemented

Program	Already Implemented	Would Implement	Would consider implementation	Would not consider implementation currently
a. Narcotics or alcoholics anonymous	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
b. Individual counseling	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
c. Group counseling	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
d. Medication to treat opioid withdrawal (such as methadone or buprenorphine)	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
e. Medication for opioid maintenance therapy (such as methadone or buprenorphine)	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
f. Medication to treat alcohol dependence (such as naltrexone)	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
g. Medication to treat cocaine dependence (such as antabuse)	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
h. Medications (any medications used to treat substance disorders) plus counseling	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀

P6. Now you will be asked about the effectiveness of a list of possible treatment plans for substance abusing offenders.

Please rank each program by the 6 point scale in the table below. Please choose only one rank per program type.

Program	Completely Ineffective	Moderately ineffective	Slightly Ineffective	Slightly Effective	Moderately Effective	Completely Effective
a. Narcotics or alcoholics anonymous	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
b. Individual counseling	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
c. Group counseling	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
d. Medication to treat opioid withdrawal	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
e. Medication to provide opioid maintenance therapy	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
f. Medication to treat alcohol dependence	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
g. Medication to treat cocaine dependence	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
h. Medications plus counseling	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

P7. Now you will be asked to consider what has been shown by studies on each of these programs that have been performed in the population you work with.

Please check next to each program under the descriptive category that best fits it. Please check one description per program.

Program	Shown to work	Shown not to work	Studies inconclusive	Not sure of studies
a. Narcotics or alcoholics anonymous	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
b. Individual counseling	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
c. Group counseling	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
d. Medication to treat opioid withdrawal	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
e. Medication to provide opioid maintenance therapy	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
f. Medication to treat alcohol dependence	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
g. Medication to treat cocaine dependence	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀
h. Medications plus counseling	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₀

P8. This series of questions has to do with how you view methadone in particular. Please answer each question with a “yes” or “no” based on your feelings about methadone.

Please ✓ Y / N

	Y	N
a. Staff will restrict access to methadone to control offenders.	<input type="checkbox"/>	<input type="checkbox"/>
b. No matter how many safeguards there are, offenders who aren't supposed to receive methadone will get it.	<input type="checkbox"/>	<input type="checkbox"/>
c. The safeguards built into the methadone program are adequate to prevent illicit use.	<input type="checkbox"/>	<input type="checkbox"/>
d. The methadone program will increase medical problems.	<input type="checkbox"/>	<input type="checkbox"/>
e. A methadone program will lead to fewer offender infractions.	<input type="checkbox"/>	<input type="checkbox"/>
f. The potential for offender abuse outweighs the potential benefit of the methadone program.	<input type="checkbox"/>	<input type="checkbox"/>
g. The methadone program will increase security risks.	<input type="checkbox"/>	<input type="checkbox"/>
h. Heroin addicts should just quit. It doesn't make much sense to use methadone.	<input type="checkbox"/>	<input type="checkbox"/>
i. The way methadone is dispensed is so restricted that it's not worth using.	<input type="checkbox"/>	<input type="checkbox"/>
j. I admire people who join a methadone program to kick their heroin habit.	<input type="checkbox"/>	<input type="checkbox"/>
k. I admire people who kick their heroin habit.	<input type="checkbox"/>	<input type="checkbox"/>
l. The final goal of methadone treatment should be abstinence from all drugs.	<input type="checkbox"/>	<input type="checkbox"/>
m. Methadone treatment substitutes one addictive drug for another.	<input type="checkbox"/>	<input type="checkbox"/>
n. Making people go through withdrawal will teach them a lesson.	<input type="checkbox"/>	<input type="checkbox"/>
o. It is not worth the money to use methadone; people will use drugs if they want to.	<input type="checkbox"/>	<input type="checkbox"/>

P9. The following questions are in regards to methadone as a treatment. Please answer each question with a “yes” or “no” based on what you know about methadone.

Please ✓ Y / N

	Y	N
a. Heroin addicts on methadone die at a younger age than people on heroin	<input type="checkbox"/>	<input type="checkbox"/>
b. Methadone causes bone and tooth decay.	<input type="checkbox"/>	<input type="checkbox"/>
	Y	N

c. Longer periods of methadone maintenance are better than shorter periods for preventing relapse.	<input type="checkbox"/>	<input type="checkbox"/>
d. Methadone clients should not be allowed to operate heavy machinery or to drive a car.	<input type="checkbox"/>	<input type="checkbox"/>
e. A maintenance dose of methadone gets people high.	<input type="checkbox"/>	<input type="checkbox"/>
f. Methadone can treat alcohol and cocaine as well as heroin addiction.	<input type="checkbox"/>	<input type="checkbox"/>
g. Heroin addiction is a moral weakness.	<input type="checkbox"/>	<input type="checkbox"/>
h. Methadone can only be used safely for a short time.	<input type="checkbox"/>	<input type="checkbox"/>
i. Heroin addiction is a disease.	<input type="checkbox"/>	<input type="checkbox"/>
j. A methadone dose should be high enough to prevent withdrawal symptoms.	<input type="checkbox"/>	<input type="checkbox"/>
k. People on methadone are too “zoned out” to work.	<input type="checkbox"/>	<input type="checkbox"/>
l. When a woman on methadone becomes pregnant she should quit using it.	<input type="checkbox"/>	<input type="checkbox"/>
m. Methadone is a drug that can be used for getting high.	<input type="checkbox"/>	<input type="checkbox"/>
n. Methadone is the best treatment for heroin.	<input type="checkbox"/>	<input type="checkbox"/>
o. You should use the lowest possible dose of methadone (for maintenance) or other dosing issues.	<input type="checkbox"/>	<input type="checkbox"/>

P10. On a scale of 1 (unimportant) to 10 (very important), rate the importance of providing substance abuse treatment to offenders with substance abuse problems...

Write a number 1-10 on the line below

a. In prison _____ b. In the community _____ c. In prison and the community simultaneously _____

P11a. Do you feel the corrections system should have a role in screening and treatment for substance abuse problems?

(Circle) **Y** / **N**

P11b. Please briefly describe your answer ✍

Thank you for your time and careful consideration of our questions. Your help is greatly appreciated in our efforts to advance the health of our nation and its citizens.

